

THE BRICKBUILDER.

VOL. 14

DECEMBER 1905

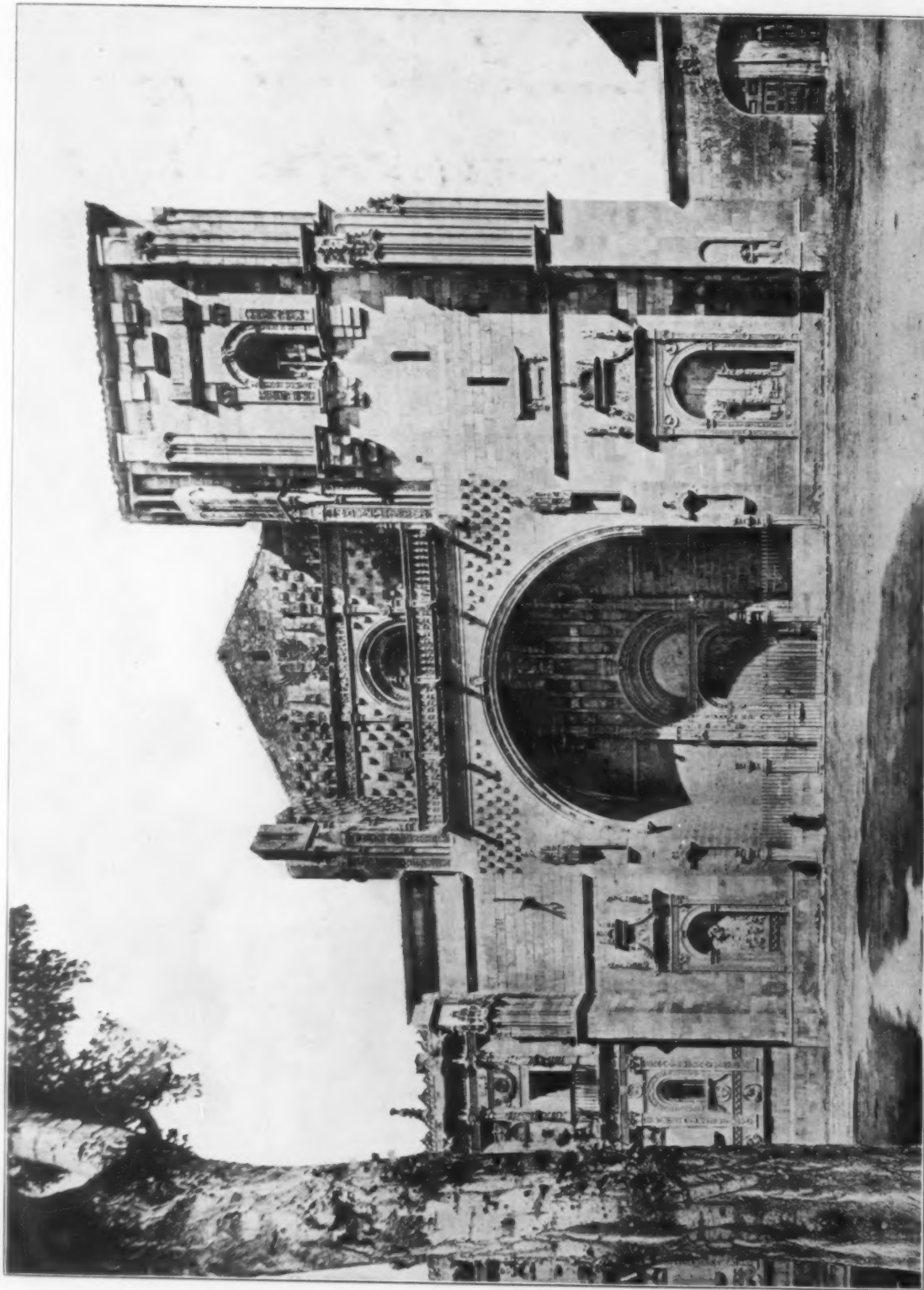
No. 12

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FROM WORK OF McKIM, MEAD & WHITE, PARISH & SCHROEDER, BRUCE
PRICE, PURDON & LITTLE.

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CONVENT CHURCH OF SAN MARCO, LEON, SPAIN.

THE BRICKBUILDER

VOL. 14 No. 12 DEVOTED TO THE INTERESTS OF ARCHITECTURE IN MATERIALS OF CLAY DECEMBER 1905

THE BRICKBUILDER.

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OUR GOVERNMENT ARCHITECTURE.

IT is stated that within the past three years something like three hundred million dollars has been expended or appropriated by the national government for naval expenses. Since the founding of the Republic the total amount of appropriations for government buildings has been somewhat less than two hundred and fifty millions. These figures of themselves are commentary on the attitude which the government officials have taken in regard to what they consider the real needs of the country.

We are at peace with all the world. There is a crying need for good public architecture. And yet we spend money by the hundred million annually to keep up a navy, while Congress begrudges the necessary funds to build the right kind of public buildings. About last June the force of the office of the Supervising Architect was cut down by the discharge of something over sixty draughtsmen, simply because of lack of appropriation by Congress.

It cannot be said, however, that as a whole our legislators have been indifferent to the demands of the different sections of the country for public buildings; but there has been in the past a woeful lack of appreciation of the necessity of building our public structures in the right way, and when discussions have arisen in the Congress or in the Senate regarding architects and their work a distressing lack of real knowledge has been shown by our statesmen, and some of the statements regarding compensation for architectural work and what is expected in return have been at once ludicrous and distressing, showing how little real familiarity of the

subject is possessed by those who have the voting power in their hands.

Until the members of Congress, who vote the money, have a better knowledge of our profession we shall continue to have but a stunted development in our government building, and it is certainly the part of the American Institute to continue the work it has so well begun of educating the political public up to its obligations.

The existing conditions certainly do not spring from any lack of good intent on the part of our lawmakers. Indeed, where the matter has been fully understood, there has been no lack of proper response and endorsement, as is evidenced by the workings of the Tarsney Act, the cordial, if somewhat debated, support which has been given to the improvement schemes for Washington, the rescuing of the Capitol from incompetent hands and placing it in charge of architects who are competent beyond question, and in many other ways have we evidence that the campaign of education, which has been pushed so well and so thoroughly by the officials of the American Institute, has borne good fruit; but as a fresh crop of legislators comes to Washington every year the struggle is perennial.

The dinner of the American Institute held last year at Washington undoubtedly exerted a tremendous influence for good, and even the honored representative who has earned the title of the "Watchdog of the Treasury" must have at least more fully appreciated what architects wanted to do by having taken part on that occasion.

WE are strangely lacking still in this country in an appreciation of the real value of good architecture. A public building is not merely an opportunity for some architect to distinguish himself or for some contractor to carry out a difficult feat of construction, but it is a public necessity, not only in the merely practical way of appropriately housing public utilities, but in the more subtle direction of cultivating or forming public taste and building up the civic spirit by an appeal to the side of man which loves beauty for itself. It is distinctly along the lines of architecture as a fine art that the American Institute must pursue its campaign of education. The city of Washington is to-day the grandest object lesson in this line which we possess, but as time goes on we hope it will be yearly more and more unwise for any politician to return to his constituents without having contributed something to the development of good architecture.

Young Men's Christian Association Buildings. I.

BY WALTER M. WOOD, SUPERINTENDENT OF EDUCATION,
THE Y. M. C. A. OF CHICAGO.

THE Young Men's Christian Association in its simplicity consists of a body of men who associate their efforts for the promotion of Christian fellowship and the conduct of such institutional activities as shall best make for the safeguarding and development of Christian manhood. The building of an Association, therefore, is not really the Association, but as its tool naturally reflects in its structure and equipment the varied purposes to be served. Since Christian manhood, as interpreted by the Association, involves in well-balanced proportions the physical, intellectual, religious and social life of the individual, an Association building intended as an institutional center and means for the culture of such manhood must make provision for activities in all these lines.

In reply to the denial of the statement that "clothes make the man," it has been said that they do very largely after all, since they make all you see of the man except his hands and face. It is equally true that while the Association building does not make the Association, it does constitute in many cases the major basis of public judgment concerning it. This is so true that the building itself is frequently spoken of as the Association. If the institutional home of an organization is to bear so vital a relation to the public conception of the organization itself, the design and construction of a proper Association building constitute no small contribution to the promotion of its interests and purposes.

The first building ever erected for Association purposes was dedicated in Chicago, September 29, 1867, its third successor being the present million-dollar building of the Central Department of the Chicago Association. In 1869 the New York City Association erected what was known as its Twenty-third Street building, at the corner of Twenty-third Street and Fourth Avenue. This building, in its architectural design, was peculiarly adapted to accommodate the varied lines of Association work, and consequently served in a large way for the following two decades as a model of Association architecture. The subsequent enlargement of the Association scheme of activities, especially during recent years, together with the rapid building movement of the Associations in North America, have demanded the careful study among architects and Association officers of Association buildings as a unique and distinctive type of semi-public buildings. Last year the number of Association buildings in North America increased from four hundred and seventy-five to five hundred and seventeen in number, while the total valuation of such buildings increased from \$26,260,870 to \$28,105,050.

REASONS FOR HAVING AN ASSOCIATION BUILDING.

It is an almost essential tool for the conduct of institutional activities.

A working organization without adequate headquarters and without special kinds of equipment to accommodate its different activities is unable to concentrate its

forces and wastes much of its energy in trying to adapt itself to unfavorable conditions for its work.

It makes the Association conspicuous in the community.

No one thing so quickly and satisfactorily brings the Association into popular notice as the possession of an appropriate building.

It gives permanence and stability to the work.

The investment of a considerable sum of money in a good building is a self-evident guarantee of public confidence in the movement, and gives the Association a financial standing that is extremely valuable in bringing further support, and in enabling it to tide over periods of temporary financial stress.

It gives the Association independence of action.

As long as an Association does not control its own building it is always apt to be more or less hampered by regulations and conditions which may be determined by others not in sympathy with the purposes or methods of the organization.

It frequently provides a means of current income.

While an Association building should be built primarily for the Association that is to use it, it is usually possible to arrange for the rental of certain store room or dormitory space, which shall provide a means of income large enough to be a strong safety factor in the financial administration of the current work.

DESIRABLE FEATURES IN AN ASSOCIATION BUILDING.

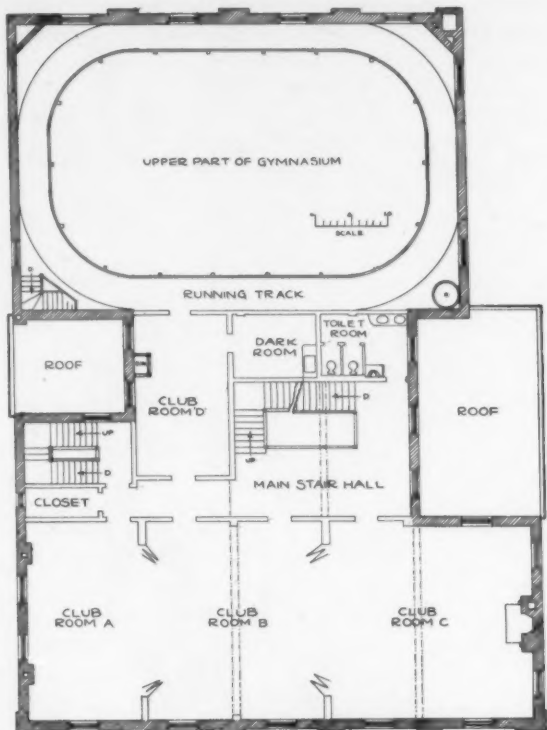
A list of the more essential features to be provided in an Association building intended to accommodate an all-round work would include the following:

A general reception room, with club or rotunda effect; general office with counter; private offices for the general secretary, physical and educational directors and other officers, arranged to be intercommunicating when desired; safety vault; closet for stock and printed matter; check room, controllable from general office, and general toilet facilities.

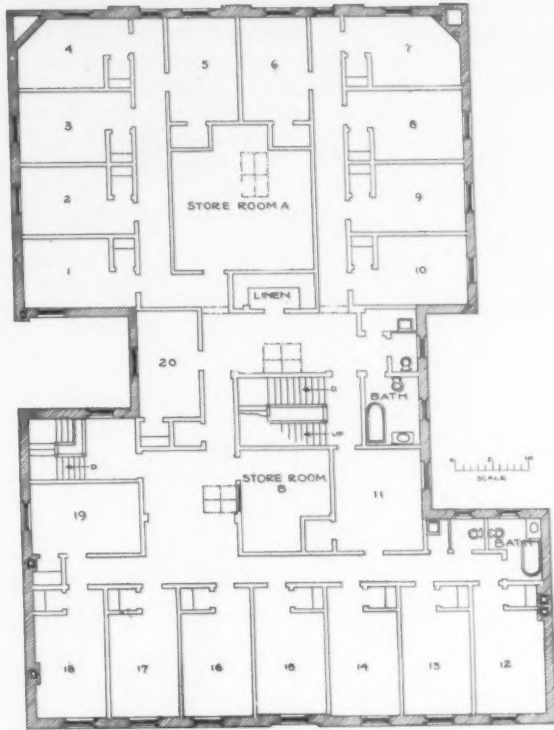
For distinctly educational use there should be a library and study room, accessible but retired, with one smaller and one larger room attached, suitable for educational talks and lectures, the larger room being capable of being darkened for use of stereopticon during the daytime; educational clubrooms, accommodating from fifteen to one hundred men; classrooms suitable for both day and evening work, accommodating from ten to fifty men each, two of the larger rooms being made so they can be thrown together; laboratories and, possibly, shops.

For distinctly physical work there should be provided a gymnasium, with running track and suitable visitors' gallery, handball court, bowling alleys; locker rooms, separate for men and boys; baths, tub, shower and steam; swimming tank, with special shower adjoining entrance; examination room, with emergency equipment to facilitate care of injuries; barber shop and bicycle storage.

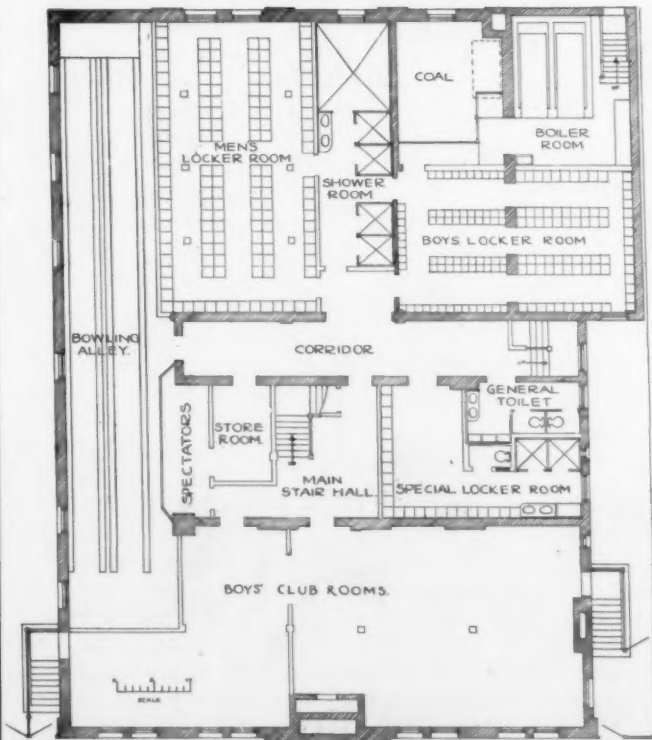
For social activities: conversation room or, possibly, parlors, perhaps adjoining restaurant, or serving as foyer to auditorium; music room; recreation or game room, possibly arranged for larger games, such as billiards; restaurant or dining room, with ample kitchen facilities; lunch or refreshment room, or "spa," adjoining general



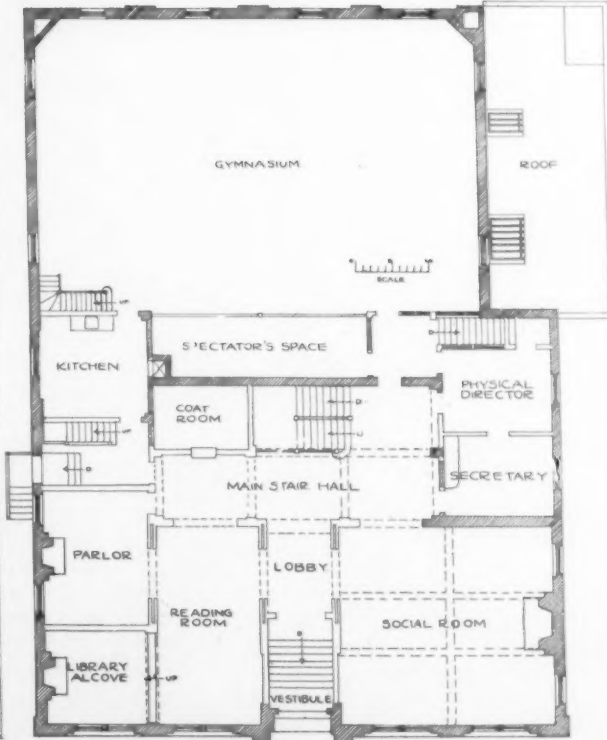
SECOND FLOOR PLAN.



THIRD FLOOR PLAN.



BASEMENT PLAN.



FIRST FLOOR PLAN.

✓ V. M. C. A. BUILDING, ANN ARBOR, MICH.
Pond & Pond, Architects.

reception room, connected with kitchen by dumb-waiter; dormitories, each with closet, some of them capable of arrangement *en suite*; auditorium, entered from general reception room or by separate entrance.

Many of the features mentioned for educational and social work, such as library, talk, lecture, club, class and music rooms, together with the auditorium, should be planned with a view to their accommodating equally well the various phases of religious work of the Association. In addition to the equipment for men there should be provided separate rooms for boys, with separate entrance, including at least reception room, game room, library and reading room, class and club room and shop, besides separate lockers and toilet facilities, as indicated.

SOME CHARACTERISTICS OF A GOOD ASSOCIATION BUILDING.

Accessibility.

As the Association building is to become the natural congregating center of young men during their leisure hours, it ought to be so located as to make it readily accessible to those whom it is especially intended to serve. Provision should be made in the form of main entrance and elevation of first floor to give the impression of easy access to the building from the street.

Attractiveness.

The architectural style of the building should be such as to attract the favorable interest of young men, causing them to regard it as a hospitable place, at the same time marking it as one of the ornate public improvements of the community to which citizens will take pride in referring.

Economy.

In view both of the sources of its revenue and the very practical nature of its work, the Association building should be constructed with as much economy as durability, low cost of subsequent maintenance and utility will permit. While the building should not be too plain to lend dignity to the work done in it, it should not bear marks of extravagance.

Adaptability to both day and night use.

This characteristic may require special consideration

of matters of natural and artificial lighting, heating, ventilation, special provision facilitating janitor service and prevention of disturbance by noise.

Possibility of enlargement.

The growth of an Association immediately following the acquisition of a suitable building frequently results in an overcrowding of the facilities provided, making it extremely desirable that in as many lines as possible additional space can be readily and symmetrically added by the erection of additional stories or annexes contemplated as possibilities in the original plan. Such foresight may save an Association from unfortunate cramping at a time of prosperity or from the necessity of severe loss and interruption to work by the erection of a new building.

Composite unity.

The work of a well-rounded Association incorporates activities and requires forms of equipment very similar in physical lines to those of an athletic club; in educational lines very similar to those of a school; in social lines similar to those of a social club, and in religious lines somewhat similar to those of a church: but it should be remembered that the purpose of the Association is to harmoniously blend all these agencies, and therefore the Association building, rather than being a combination gymnasium, schoolhouse, social club and church, should be a composite unit. Each section should be made sufficiently distinctive to facilitate and dignify its work, but a division into seemingly independent departments should be carefully avoided.

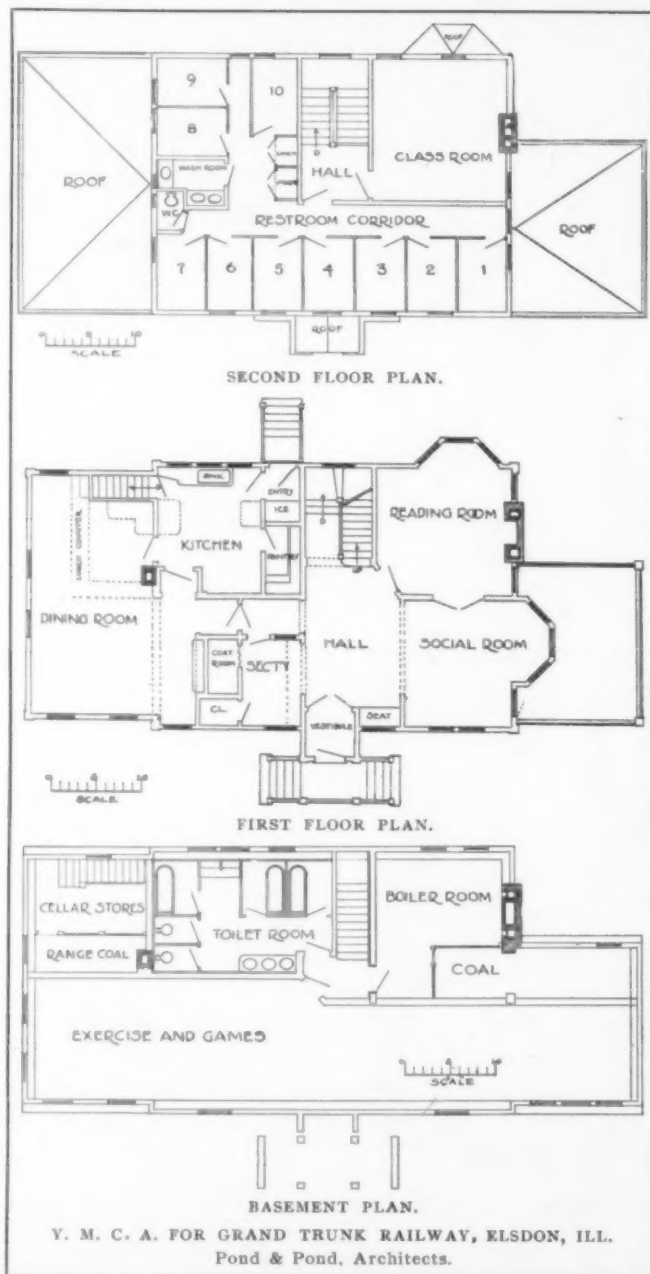
Flexibility of arrangement.

A growing organization, conducting constantly vary-

ing activities, should have its building so arranged as to permit the shifting of a room from one use to another without seriously modifying the general plan, and without involving any considerable expense for changes. Except when necessary the design of rooms should not be such as to make them suitable for fixed and limited uses only.

Ease of division for partial or separate use.

In an Association there are many times of the day and



certain seasons of the year when portions of the building need not be in active use. Provision should be made that at such times they may be easily shut off without harming the appearance and usefulness of the portions kept open. It is always advisable to have the open space reduced to the lowest working minimum. It is important that there shall be means of easy and complete separation of certain portions of the building for special use when desired, such as the auditorium when rented and the rooms of the boys' division.

Minimum of internal traffic involved.

One of the key principles in the disposition of space and arrangement of features is to so place them as to involve the least possible amount of travel on the part of a member going between the entrance or main reception room and any privilege which he may desire to use. A helpful method in securing this is to follow the likely path of a member in his use of the privileges and shorten the lines wherever possible. This reduction of traffic facilitates control, increases convenience and decreases disturbances and wear and tear.

Ease of control by minimum force.

Since immediate oversight of every privilege when in use is an essential feature of Association work, and since the number of employees must be as small as possible, it is expedient that the entire plan shall focus at one general office, and that privileges in other portions of the building shall be grouped around what might be called sub-foci, making it possible for a man at a central point to have within easy and effective control the use of all privileges in that section of the building. This reducing of

the number of foci to be manned reduces the expense and increases the likelihood of having them manned by competent help.

Non-interference of one feature with another.

The great variety of the Association's activities, and the fact that many of them may be in active use at the

same hour, require unusual care in the design of the building to prevent the active use of one privilege from disturbing those who are using another. For example, the placing and construction of the gymnasium and bowling alleys shall be such as not to throw out of use at the same hours the auditorium or classrooms. Likewise, the clubrooms, where applause is appropriate, should not be surrounded by classrooms, where quiet is essential; and the music room should not be an alcove of the reading room.

Arrangement of features magnifying their self-advertising value.

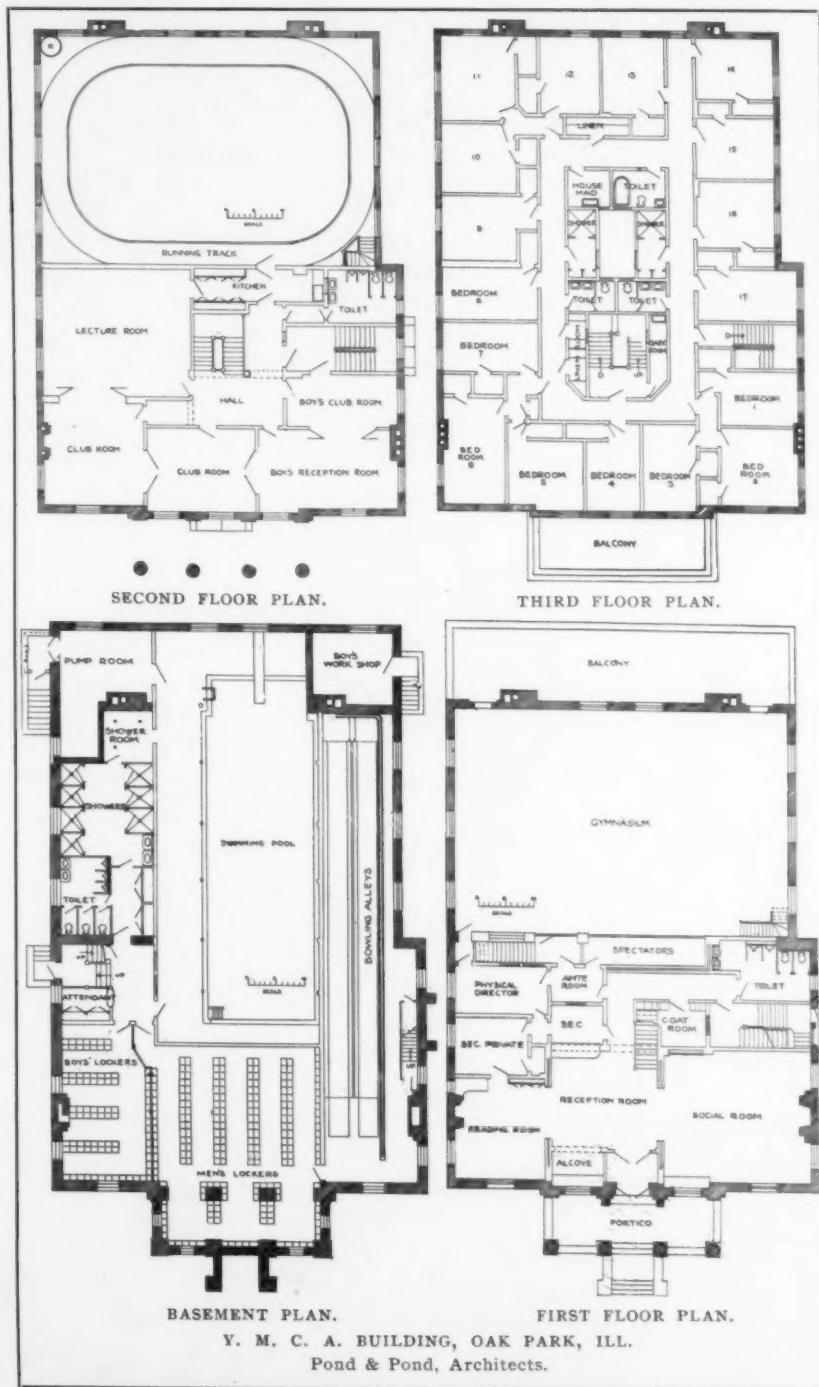
Since many men are attracted for the use of certain single privileges, and since the Association seeks to enlist men in all-round activities for their symmetrical development, it is advantageous that all features shall be so placed with relation to one another that the men who come for one thing shall automatically be brought face to face with other privi-

leges into the use of which they may be led.

MATTERS REQUIRING SPECIAL CARE, BUT OFTEN NEGLECTED.

Concentration of plumbing in accessible form for care and repair.

The extensive bathing and toilet facilities in an Association building of necessity constitute a large item of



expense for construction. While convenience in arrangement of other features might make desirable a somewhat scattered or divided system of plumbing, the proper and economical installation of a plumbing system demands as little division as possible. Ample space should be used to make all plumbing easily accessible for frequent inspection and for repairs when needed. Special care needs to be exercised in the proper distribution of an adequate supply of hot and cold water.

Adequate and specially distributed lighting.

In view of the large amount of night use of an Asso-

Ventilation.

While the problem of ventilation is a common one to all buildings, some features of an Association require special provision in this line. Rooms and special ventilating apparatus should be so placed as to carry off the odors from the locker room, gymnasium, kitchen and restaurant and much of the steam from the bathrooms, instead of allowing the atmosphere of the entire building, for lack of this provision, to become heavy and noxious. In rooms of assembly, as the auditorium, club and class rooms, an unusual provision for fresh air is requisite, as



ciation building and in view of the many rooms, such as reading and class rooms, where close application to work is required, there is necessity for an abundance of light and for its distribution to meet particular demands, instead of its being entirely massed for general lighting by chandeliers and the like. Provision should also be made that the lighting system be cut up into small enough units to make possible the lighting of small sections independently, rather than lighting up a large section when it is needed only at one point. This provision means very much in economy of operation.

the rooms are occupied usually by men after a day of active work and who are, consequently, especially susceptible to drowsiness.

Adequate and rightly placed storage and workroom space for engineers and janitors.

The varied activities of an Association involve the possession of equipment needed from time to time for temporary use. Proper storage space should be provided for this equipment when not in use in such form as to furnish it proper protection and make it accessible when wanted without involving difficult or expensive handling.

Much repair work can be done within the building at slight expense if there is a sufficient working space set aside for it. To such storage and work space things not in use, or needing repair, can be taken at once, thereby freeing the Association rooms from being cluttered with unnecessary and broken furniture and apparatus.

Dressing room, lavatory and toilet facilities for the employed help and also for women.

If not regularly, most Associations from time to time must have on duty or in attendance at their building a considerable number of employees or guests, both men and women, for whom it would be inconvenient and perhaps impossible to set apart a portion of such facilities from those regularly provided for members' use. This necessitates special provision of such facilities, so located as to make for the greatest convenience and least interference with the regular operation of Association activities.

Bulletins.

The numerous and varied activities of an Association which require specially posted notices, either in front of the building, in the reception room or at sub-centers throughout the building, make it expedient that the plans shall incorporate bulletin boards of proper size, so placed as to effectively harmonize with the general architecture and equipment, thus preventing their being put later in unsightly places, much to the detriment of the general effect.

Standard dimensions for physical work features where competitive records are involved.

The equipment for numerous games and other features, such as the swimming tank, must be of standard proportions as defined by athletic bodies, if records made in their use are to be recognized in competitive lists. While an Association may not desire to emphasize competition or record making for recognition by athletic bodies, it is unfortunate to be denied such opportunity by avoidable limitations in equipment.

The planning of a modern Young Men's Christian Association building is a new and unique piece of architectural work worthy the most interested and conscientious effort of any architect. Upon the design which he executes hinges in no small degree the public's conception of the Association and the free or restricted development of its purposes. For an architect to give to a Young Men's Christian Association a building really suited to the purpose of its work is to render a great service, contributing to the development of Christian manhood and the promotion of the public welfare.

MUCH of our architecture suffers because of the commercial limitations which are generally at the very start imposed upon the architect. Especially is this true of such a structure as a theater, which, of all buildings, permits of a logical relation between plan and exterior, and an accusing of the interior arrangement on the exterior design. But there is not in this country to-day a single theater building which is designed in the broad academic manner, or which has a plan which of itself could be called architecturally interesting. The architect is invariably told to design a theater for a given site, and the site is selected upon purely commercial considerations, without reference to its peculiar fitness.

The Work of the Boston Schoolhouse Commission, 1901-1905. III.

INFORMATION TO ARCHITECTS.

THE Board have furnished each architect with a copy of a previous specification to serve as a pattern. In this way the form of the specifications has become standardized, omissions made unlikely, and reference made easy for those who are constantly using a large number of different specifications. In addition "General Information for First-Class Construction"* is furnished by the Board. This information, as given in the last report of the Board (February 1, 1904, to February 1, 1905), is briefly as follows, together with some notes as to the steps by which they have arrived at their present regulations.

In general, all buildings are of first-class construction throughout, including the roof. This avoids certain restrictions as to enclosed staircases, etc., which would obtain in second-class construction and which the Board consider undesirable. As was shown in connection with the Samuel W. Mason School (noted in article II, November number) the excess of the cost of first-class construction over that of second-class is not great, and in view of the benefits obtained the Board consider it worth while.

Schoolrooms. The dimensions of the classrooms are now fixed at 24 feet by 30 feet for primary and 26 feet by 32 feet for grammar grades. The primary room was originally 24 feet by 32 feet, but was modified in 1903 to the present size. During the same year, having definitely fixed the sizes of the desks and seats, the Board established two alternative dimensions for the grammar grade, i. e., 24 feet by 32 feet and 26 feet by 30 feet, which would seat fifty pupils instead of the standard fifty-six, and which could be used in exceptional cases where pressed for room. The standard height is set at 13 feet in clear. Modifications of the standards are made only after consultation with the Board.

The lighting called for is for windows in a long side arranged for left-hand light. The sill is set at 2 feet 6 inches from the floor, and all windows are desired to be square headed, extending close to the ceiling, the total area of glass to be not less than one-fifth of floor area, or about 160 square feet for a standard primary room. Large sheets of glass are not desired, the windows being preferably divided with muntins. Architraves are omitted and the jamb plastered to a metal corner bead. Each room has but one door to the corridor, 3 feet 6 inches by 7 feet, and partly glazed for easier inspection by the principal during school hours. Georgia pine rift or maple is specified for floors. The walls now are painted burlap up to top of blackboard with tinted plaster above. At first the burlap extended merely to the window sill. The blackboards, always 4 feet high, are placed at the teacher's end, and on one long side in primary schoolrooms and on the wall opposite the teacher as well in grammar. The bottom of the blackboard varies from 2 feet 2 inches from floor in kindergarten rooms to 2 feet 8 inches from floor in grammar schoolrooms, and in primary schools

* Boston Building Laws define first-class construction as fireproof construction throughout.



JEFFERSON SCHOOL.

Grammar, Lowell District, Heath Street. Shepley, Rutan & Coolidge, Architects.
 19 rooms: 950 pupils.
 Cube, 856,777 (855,000). Cost, cubic foot, \$0.24 (\$0.22).
 Cost, \$210,890.49 (\$188,100). Cost per pupil, \$221.99 (\$198.00).

a rack is arranged over the blackboard to take cards. Picture moldings at top of burlap and at ceiling are used in both grades, and the details for chalk gutters, etc., are furnished by the Board. The artificial lighting is by electric light reflected from the ceiling. Six groups of four lights each, with underneath reflector, throw the light against the plaster ceiling, which is left level and untinted. Each room has its bookcase let into the wall and fitted with movable shelves for three hundred books behind glazed doors, with drawers and cupboards below, drawings of the standard type being furnished by the Board. A small closet for the teacher's coat and hat is desired opening from the classroom, but may open from the wardrobe.

The wardrobe adjoins the classroom and is entered by two double swing, partly glazed doors, both from the classroom, there being no direct connection with the corridor. The walls are treated as in the classroom, the burlap extending up to the hook rail, which is set at different heights for the different grades, with shoe and umbrella rack below. There are no thresholds to the doors. An open space under one door or an open panel assists the ventilation of the wardrobe, which has its own vent duct. The wardrobes are from 4 feet 6 inches to 5 feet 6 inches wide.

The corridors vary from minimum widths of 8 feet for a four-room floor plan and 10 feet for a larger number, the size being governed by length, access, etc. Outside light into the corridors is considered essential. Tile, terrazzo or granolithic is used for the floors. There are

NOTE.—The figures in parentheses, given in connection with the titles, are limits set by the Board.

one or two 4-foot sinks on each floor above the first in the corridor. The walls of the corridors have a 7-foot dado of painted burlap, with untinted plaster above.

The number and arrangement of the staircases are determined by law, the construction in all cases being fire-proof. North River stone on iron frame or granolithic surface on concrete construction is the general type of tread, the North River stone giving the greatest satisfaction for durability and cleanliness. Wall rails are not considered necessary, but are put on if the principal wishes. The rails are kept high (2 feet 8 inches on runs and 3 feet on landings), with simple, easily cleaned pattern, and the steps are 6½ to 7 inches by 10 inches. A center rail in stairs over 5 feet wide was at first required, but has been abandoned.

In each grammar school there is to be a room centrally located for the master, with toilet and book closet. In all

schools teachers' rooms are provided, averaging about 30 square feet per teacher, with one water-closet and bowl for each ten. Where men as well as women are teachers there is a separate room arranged for the men. A general book room is provided in each school, fitted with cupboards and shelves and depending in size on the grade and size of the school.

All the free basement space is arranged as playrooms for boys and girls, the walls being lined with salt glazed brick up to seven feet, and being painted or whitewashed above, the ceilings being plastered and the floors having asphalt or granolithic surface. From these playrooms there are exits to the playgrounds adjoining the building. The playrooms for the boys and girls are intended to be separated, but in some very compact plans it has been impossible, and a common playroom has been all that the space would allow. This is not desirable, as proved by the Jefferson School, illustrated in this number, where the common playroom has resulted in keeping the boys outside until time for school to begin.

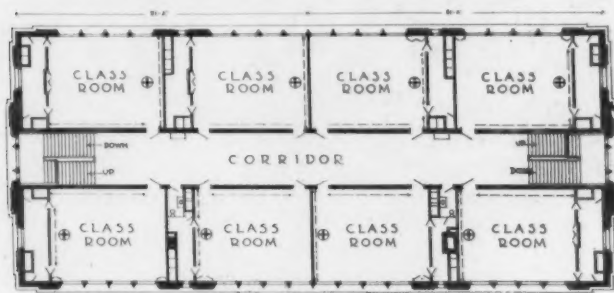
In grammar schools the assembly hall is arranged with a platform capable of seating one or in the larger schools two classes. Galleries are allowed where the hall is two stories high, and anterooms near the platform are needed with connection from adjoining classrooms either through anteroom or direct to platform. The floor is kept level, and the hall is expected to accommodate the whole number of pupils in the smaller grammar buildings, but in the larger ones to seat generally not over six hundred to seven hundred.

A drawing is furnished showing the standard arrange-

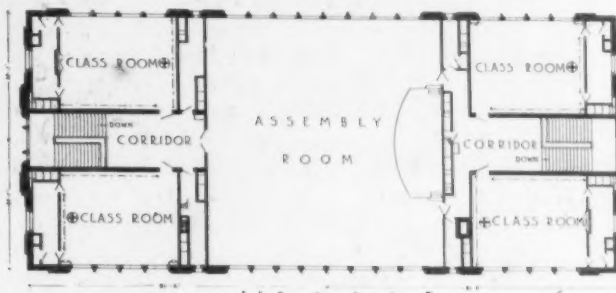
ment of a manual training room of thirty benches. The room should have windows as near full length as possible, and a corner location with windows on two sides is desirable. In the corner between the window walls are placed the demonstration bench and steps. Each room should have a wardrobe with space for thirty hooks, a large teacher's closet with shelving where finished work can be stored, bookcase as in regular classrooms, about thirty running feet of blackboard, a large work rack across one end of room 2 feet deep and 6 feet 6 inches high, and a stock room of about 80 square feet, with two 18-inch shelves on all walls. A 3-foot sink is a convenience but not a necessity. The room is finished simply if in basement, with sheathed or painted walls; if above the basement it is finished like the classrooms. The furniture,

on the first floor with south or southeast exposure and large enough to take a 16-foot circle with 4 feet outside; also an adjoining room connected with this of about 200 square feet. If on a corner, light from both sides is used. The fittings are similar to ordinary classrooms, only the tack board over blackboard should be covered with burlap, and two bookcases or one large one should be provided. A store closet for supplies is needed, and a somewhat larger teachers' closet than in other rooms, as there are three teachers. Wardrobes are similar to general type, with space for sixty hooks, and a water-closet and slate sink are convenient features to have adjoining the kindergarten.

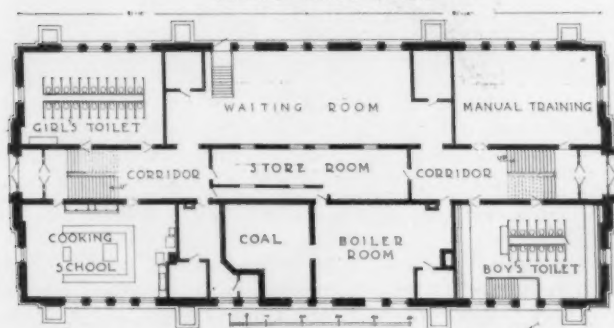
The general toilet rooms are put in the basement. The basis of accommodation is three water-closets (two girls',



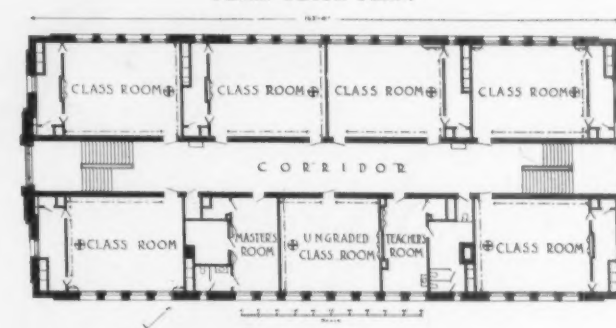
SECOND FLOOR PLAN.



THIRD FLOOR PLAN.



BASEMENT PLAN.



FIRST FLOOR PLAN.

(CROSS IN CIRCLE, TEACHER'S DESK. LINE AND DOT, BLACKBOARD.)

PLANS, JEFFERSON SCHOOL.

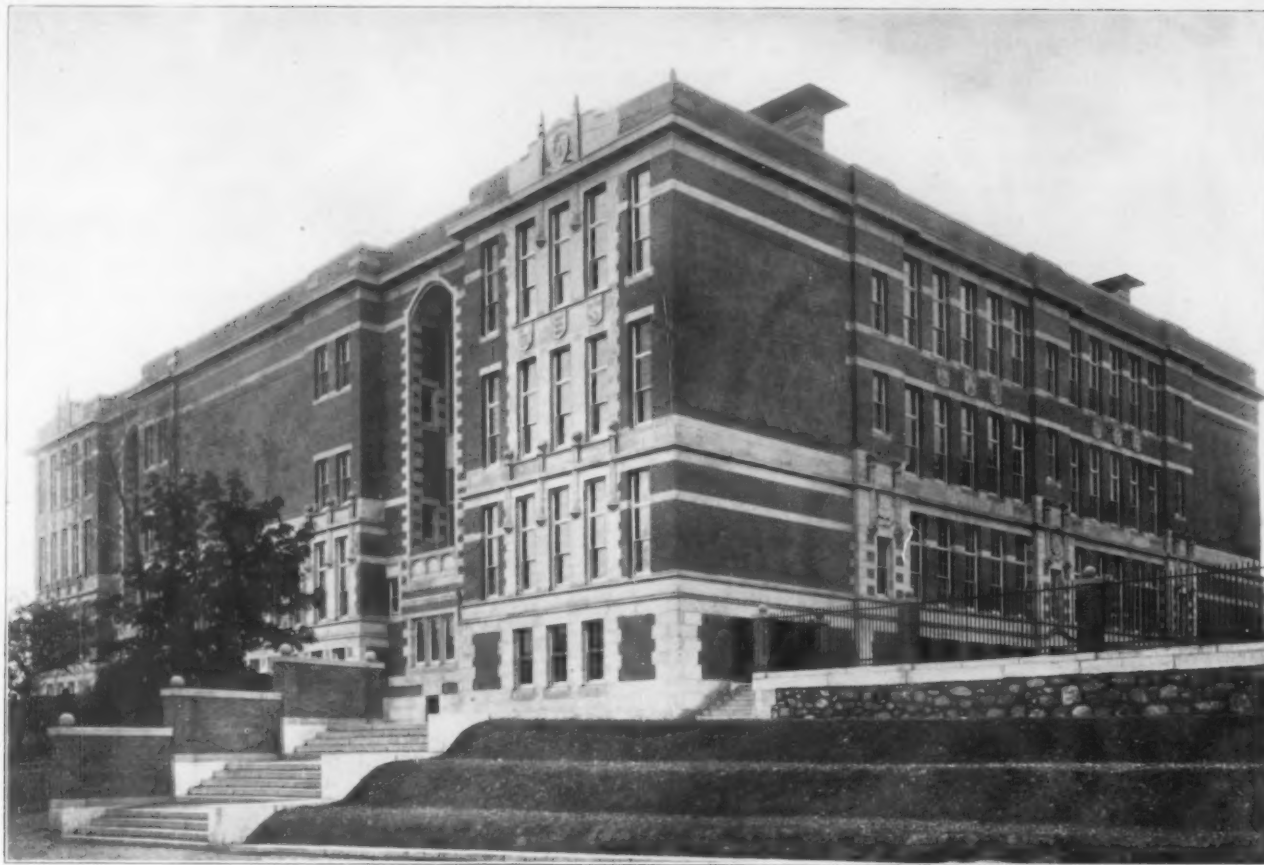
consisting of the workbenches and stools, display frames, demonstration steps with guard rail and a large table with unfinished top besides the teacher's desk, is not included in the general contract.

The cooking room is of the size of a classroom and wardrobe combined or larger if space is available, and like the manual training room may have light from two sides. It is furnished with workbenches to accommodate twenty-eight pupils, set in an open form with a detached demonstration bench in the middle of one long side, with an opening opposite giving free access to the enclosed space, in which is placed a dining table. Each station is fitted with a Bunsen burner with hinged iron grill set on aluminum plates. The room is furnished with wardrobe closets, teacher's closet, a section of blackboard 10 feet long, a dresser 10 feet long in three sections, a fuel box, bookcase, sink, refrigerator and demonstration coal and gas ranges set on tiled hearth.

The kindergarten, if required, is placed preferably

one boys') and thirty-six inches of urinal for each classroom. Slate sinks, 12 inches per classroom, are located preferably in the playrooms. In large schools the number of fixtures can be considerably reduced from the above, especially on the boys' side. Ample outside light is required. Glazed double-swing doors give access. The floors are asphalt, and in the boys' toilet drain to the urinal, in the girls' draining to a floor wash. The ceilings, as in all the basement, are plastered directly on the under side of the floor construction.

Heating and Ventilating. Detailed information for the size and location of the heat and vent ducts is given for both gravity and fan systems. In a gravity system the heat duct is on basis of one square foot of cross section for each nine occupants; in a fan system the same for each fourteen occupants. The location of opening is the same in both cases, being in the middle of wall opposite windows, or, if the room be a corner room, within ten feet of outside wall. The bottom of the opening is



MATHER SCHOOL.

Grammar, Mather District, Meeting House Hill.

Cram, Goodhue & Ferguson, Architects.

31 rooms: 1,550 pupils.

Cube, 1,353,831 (1,240,000).
Cost, \$288,380.46 (\$272,800).Cost cubic foot, \$0.21 (\$0.22).
Cost per pupil, \$186.05 (\$176.00).

8 feet high, and in a fan system the opening is one-third larger than the duct, but in a gravity system is the same size. No guard is put in the opening, and it is finished inside like adjoining walls.

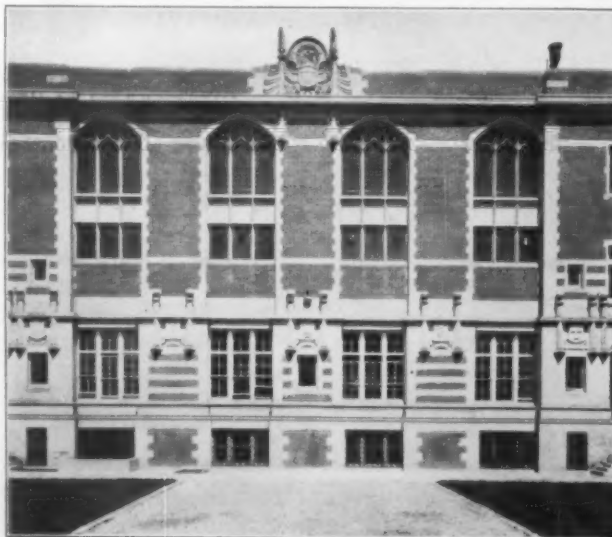
The vent ducts allow about one square foot for each ten occupants or each sixteen occupants, according as the system be gravity or fan, and are located where possible on same walls as heat ducts, but in any case on an inside wall. The openings are full size of ducts, and the floor is carried into bottom of duct, the base-board carried around and the exposed inside of duct finished like adjoining walls.

Each wardrobe has vent duct of 123 square feet section, with top and bottom registers, and the space under door as noted above allows air to pass freely from classroom through wardrobe and out vent duct. The doors

into toilet rooms have openings, either in lower panels with register face or under door, equal to area of vent duct. The size of the vent duct is on the basis of 12 inches for each closet and for each 16 inches of urinal space.

The rooms are vented through the seats, each seat having local vent of 13 square inches, and through slots at bottom edge of urinal slab close to the trough, according to a standard drawing furnished by the Board.

The buildings are all wired for electric light, with gas outlets provided in all corridors, stairways, vestibules and boiler room. In the classrooms the fixtures have already been noted as specially designed by the Board for combined direct and diffused light: these six groups are governed by three switches, and in addition there is a drop light over teacher's desk. Wardrobes have each a two-light ceiling



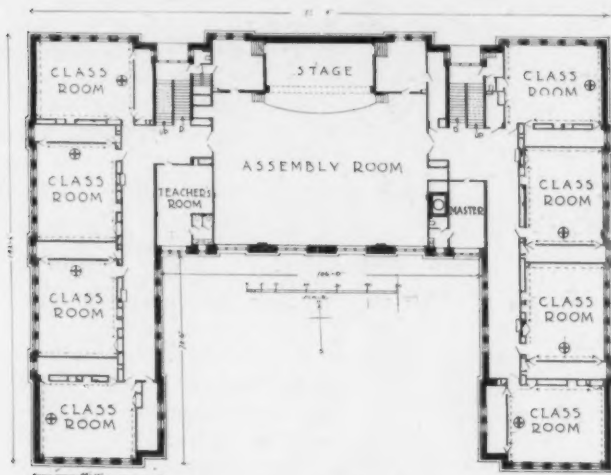
DETAIL OF REAR, MATHER SCHOOL.

outlet. The corridors are lit from ceiling wherever possible, with emergency gas in addition. The switches in corridors, playrooms and toilets are operated by a private key.

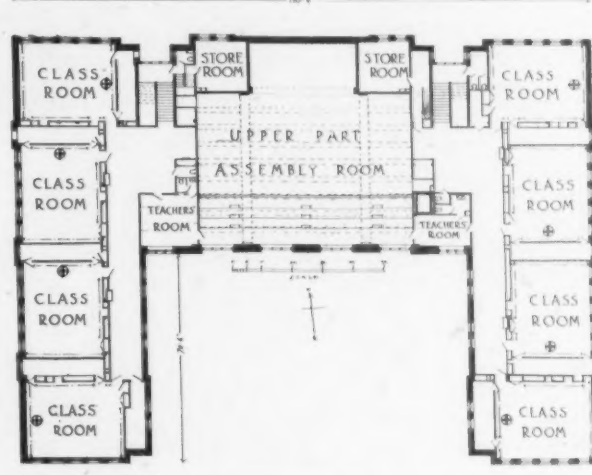
A complete system of clocks and bells is installed in each school, the clocks operated by a master clock, and the bells operated by a push button in primary schools, but operated automatically by the master clock in grammar and high schools. In every school each room, hall, teacher's room and boiler room is connected to master's office or first assistant's room by a telephone system.

have applied and would be eleven per cent less than those given.

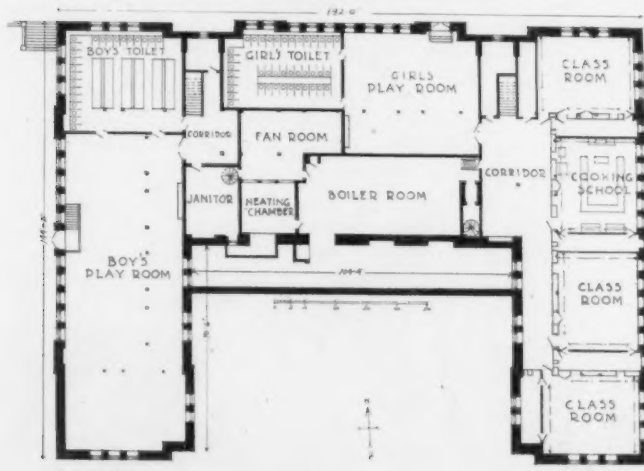
The plan is a very compact rectangle, with the rooms giving off on either side of a corridor running the length of the building, with stairways and entrances at the ends. The second floor, with eight rooms, is quite an ideal plan. The arrangement of windows, however, was influenced by the design, so that either the second floor with its slender iron mullions has too much light or the more solidly constructed first floor too little, and the assembly hall on the third floor, with the second floor fenestration carried



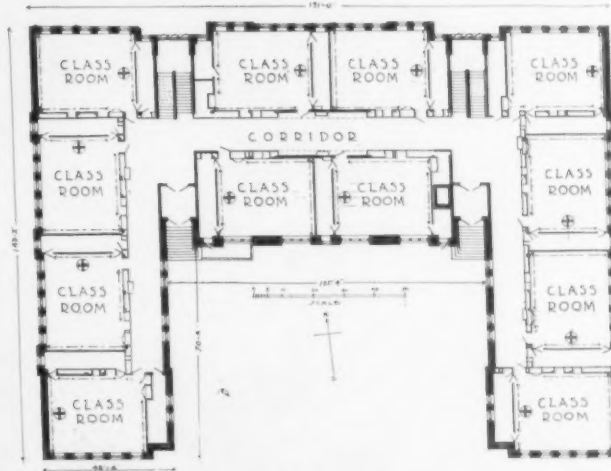
SECOND FLOOR PLAN.



THIRD FLOOR PLAN.



BASEMENT PLAN.



FIRST FLOOR PLAN.

(CROSS IN CIRCLE, TEACHER'S DESK. LINE AND DOT, BLACKBOARD.)

PLANS, MATHER SCHOOL.

THE JEFFERSON SCHOOL.

This is one of the first grammar schools built by the Board, being contracted for before they had standardized the requirements to the extent they subsequently have, and to this cause they assign the excessive cost. The Board's inability at that time to instruct the architects as to the necessary reductions, and a site which required four months of blasting together with a somewhat expensive glass and iron exterior wall construction forced the cost above the highest limits, which are those given in parentheses in connection with the illustrations. Being a school of over eighteen rooms, the low limits should

up, has an undesirable amount of light for a room of that nature. With this symmetrical plan and treatment of elevations, the assembly hall, the largest unit in a grammar school, finds no expression in the exterior, and this plan would therefore seem more logical for a primary building, for which, with the third floor like the second, it would be ideal. Here the assembly hall occupies the space on the third floor equivalent to the four central classrooms and corridor space on the floor below, gaining the necessary height by a somewhat higher central section of the flat roof blanked by a higher balustrade. Owing to the compactness of the plan there is insufficient



OLIVER WENDELL HOLMES SCHOOL.
Grammar, Gibson District, School Street, Roxbury.
A. W. Longfellow, Architect.

24 rooms: 1,200 pupils.
Cube, 991,609 (950,000). Cost cubic foot, \$0.19 (\$0.22).
Cost, \$188,326.47 (\$201,200). Cost per pupil, \$156.94 (\$176.00).
Without some planting and grading.

space in the basement for the two playrooms in addition to the manual training room and cooking school and the usual domestic engineering. The available space has in consequence been thrown together, intended as a common playroom. This seems a difficult arrangement to administer, and here has resulted in the playroom being turned over to the girls, the boys being kept outside the building until school time. The playgrounds are separated, being on either side of the building, enclosed with iron railings and planted areas. The school is assured permanent light, as two proposed streets will eventually bound the lot on the long sides, and the corridors and some wardrobes alone will be affected by any building on the adjoining lot to the west. The heating system is low pressure gravity return, with a gravity system for air, with hand control in each room.

THE MATHER SCHOOL.

The Mather School, occupying the north side of the top of Meeting House Hill, is the first and largest of a group of school buildings proposed for this site, the Board aiming to take advantage of what they consider to be the finest location owned by the city for school purposes, and to create eventually a commanding educational group forming an open quadrangle with an unobstructed eastern view. This, the largest grammar school yet built by the Board, is composed of a central block connected with two flanking wings by the stairway and en-

trance halls. The assembly hall occupies the second and third floors of the central block, a gallery opposite the platform connecting the wings on the third floor. Owing to the slope of the land it was possible to get four rooms in the basement of the eastern wing almost wholly above grade. Four rooms in the other wing are available, though with not such perfect light, and can be finished when needed, making the school a thirty-five room school. One of the rooms in the eastern wing is being temporarily used as a cooking school. It is proposed to locate this with manual training rooms, now cared for in another building, in one of the future buildings, so that eventually this school will rate as a thirty-six room school. Almost all the rooms have the relation between schoolroom and wardrobe considered ideal by the Board, only two on each floor being exceptions. A series of shields, with federal, state and civic devices and devices of educational establishments at home and abroad, forms an extremely interesting feature of the ex-

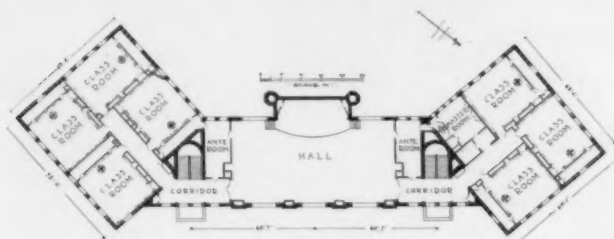
terior. The heating is by a combination pump receiver and gravity return system, the water returning direct to the boilers through a by-pass valve when the pressure is dropped at night, but during school hours being returned by means of a pump. A twelve-foot plenum fan, run by a steam engine, forces the air to the schoolrooms, venti-



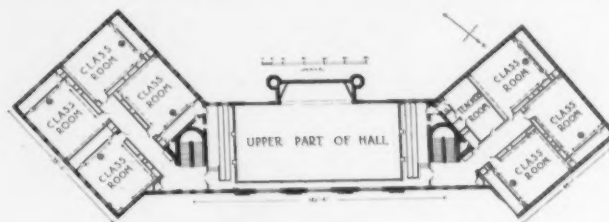
FRONT OF OLIVER WENDELL HOLMES SCHOOL.

lation being stimulated by means of aspirating coils heated by exhaust steam from the engine, which also furnishes the steam for the heating system through a reducing-pressure valve when full pressure is needed for running the fan.

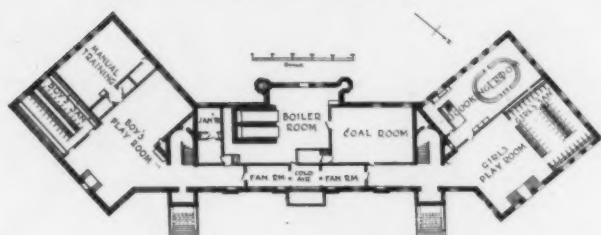
right-angle corner of the lot. The basement of the new building contains the cooking school, the toilets and the heating system, which is similar to that installed in the Mather. The hall, which occupies the second and third stories between the staircases, is of an unusual shape,



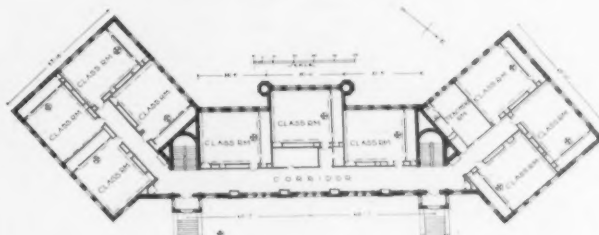
SECOND FLOOR PLAN.



THIRD FLOOR PLAN.



BASEMENT PLAN.



FIRST FLOOR PLAN.

(CROSS IN CIRCLE, TEACHER'S DESK. DASH AND DOT, BLACKBOARD.)

PLANS, HOLMES SCHOOL.

THE OLIVER WENDELL HOLMES SCHOOL.

In this school an unconventional plan has been developed on account of an irregular lot, with a large number of fine trees which it was undesirable to sacrifice. The playgrounds occupy the corners of the lot. The old Gibson School building was moved and occupies now the

being very wide and shallow with galleries at either end, but has proved satisfactory.

This is the most economical grammar school yet built by the Board. The figure given as cost is exclusive of some planting which was done later. With this the figure was within \$195,000.



WINDSOR AVENUE ENTRANCE, KENEY PARK, HARTFORD, CONN.
Benjamin Wistar Morris, Jr., Architect.

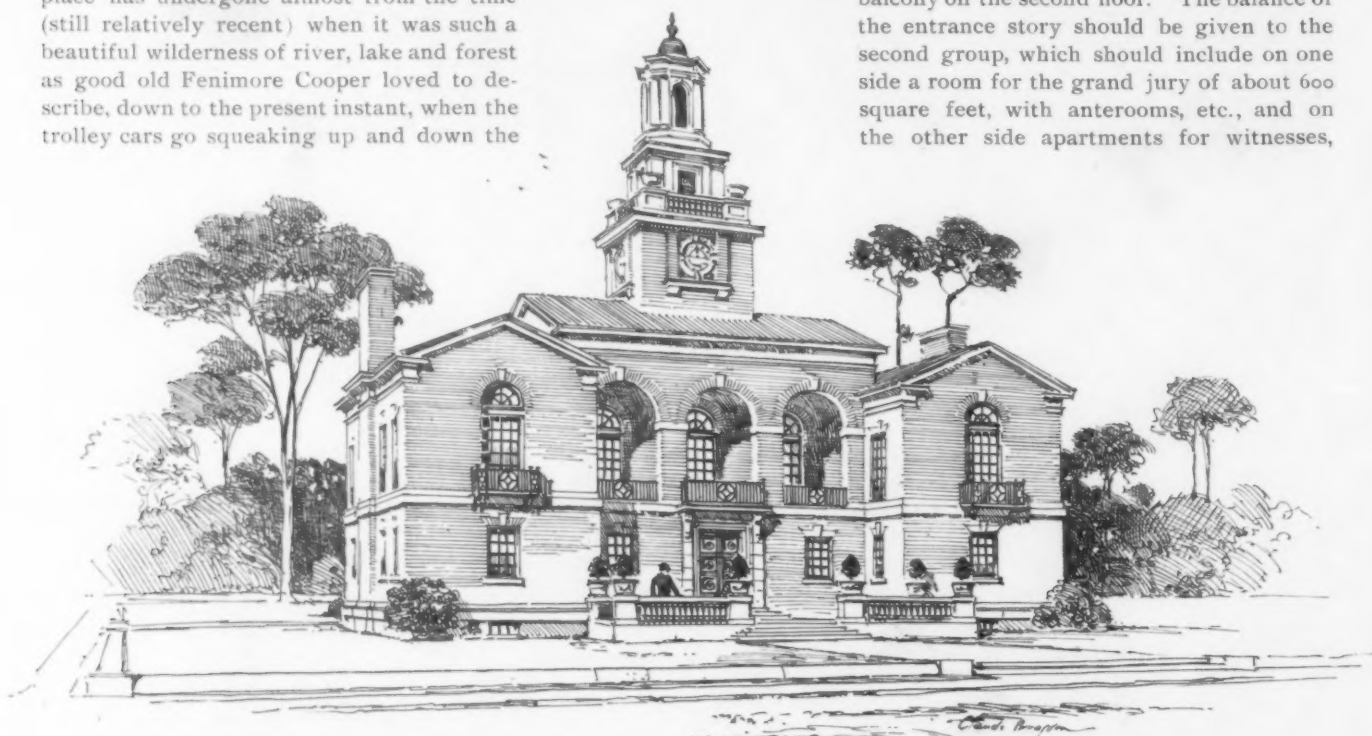
The Village Courthouse. I.

BY CLAUDE BRAGDON.

THIS courthouse, though imaginary, is assumed to occupy, and (I venture to hope) to adorn an actual town, or, since it is not well to be too specific, a composite made up of some half dozen of the featureless towns of central New York. Its architecture, if one may apply that noble word to a thing so ignoble as the half-mile-long double row of stores, churches and houses which face one another across the wide, muddy elm-sheltered main street, has at least the merit of conserving and portraying the various vicissitudes, æsthetic and economic, which the place has undergone almost from the time (still relatively recent) when it was such a beautiful wilderness of river, lake and forest as good old Fenimore Cooper loved to describe, down to the present instant, when the trolley cars go squeaking up and down the

u-facturer. They are enlightened enough to realize that the achievement of beauty must rest with their architect, but in order to assist him on the practical side they will have visited other county seats, interrogated court officers and employees, and in the light of knowledge gleaned in this way, formulated for his guidance the following program:

"The courthouse is to provide accommodation for three distinct groups: first, a courtroom of about 1,200 square feet, with small anterooms for the judge and counsel, with a separate rear entrance. It is suggested that this occupy a separate pavilion in the rear, the height of the courtroom being carried up so as to form a small balcony on the second floor. The balance of the entrance story should be given to the second group, which should include on one side a room for the grand jury of about 600 square feet, with anterooms, etc., and on the other side apartments for witnesses,



A VILLAGE COURTHOUSE. Claude Bragdon, Architect.

old Iroquois trails, and sawdust, sewage and slag, clog and pollute the primeval water courses.

There are a few fine old houses, built in the early years of the last century by the first holders of the land. They are either shabby and neglected, or else (and this is worse) altered out of all semblance of their original form. Though only the work of country builders, their details and proportions have an unmatched felicity, — they are like the rare flowers of an old-fashioned garden overgrown with weeds. One or two pretentious white-pillared porticos mark the period of the Classic revival; after these a deluge of mid-Victorian ugliness. In the names of Mansard and Queen Anne what crimes have here been committed! To complete the enumeration there are a few, a very few, really good modern houses, the first fruits of the revival of taste upon which we are at last entered.

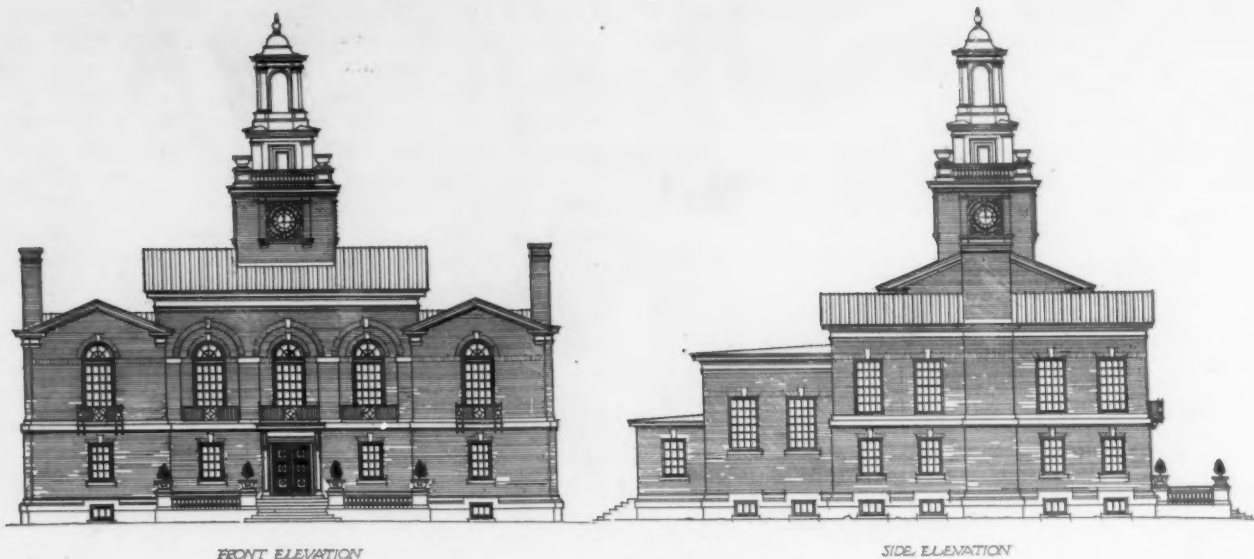
Let us assume, since all is assumption, that the building committee for the new courthouse is composed of those men of the town most competent for such office, a judge, a lawyer, a retired builder, a merchant and a man-

prisoners and the district attorney. There should be an ample lobby in the first floor with two flights of stairs leading to the second story in front portion, which should be given up to the probate court, including a courtroom of about 600 square feet and registry of deeds of about 600 square feet and offices for the registrar and clerks and a small waiting room."

The only other condition imposed is that the building be constructed of burnt clay in some of its forms, since the making of excellent brick and terra cotta are important local industries.

The lot upon which the new courthouse is to stand has a frontage of 250 feet on the main street, and faces the public square, — a rectangle of trampled grass with a jigsaw pagoda used as a band stand at one end, and a firemen's monument at the other. At the invitation of the building committee a well-known firm of landscape architects is already preparing plans for the reclamation and adornment of this square.

Such, then, are the various factors with which the architect of the new courthouse has to deal. One or two



FRONT ELEVATION

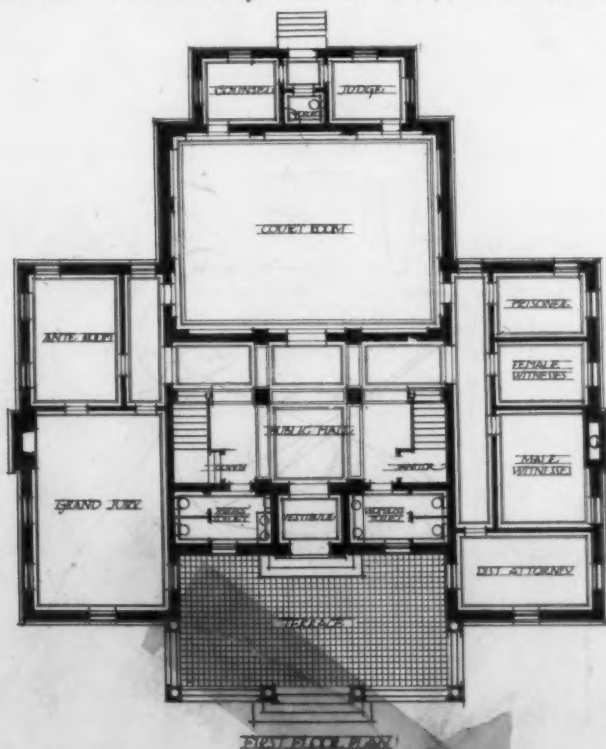
SIDE ELEVATION

ELEVATIONS, A VILLAGE COURTHOUSE.

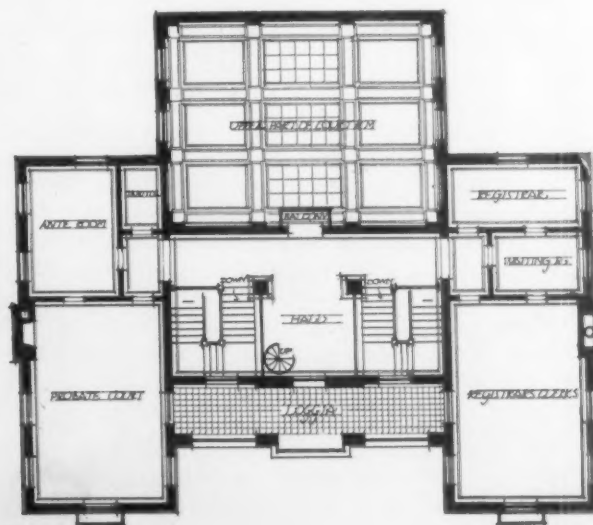
features not called for in the syllabus naturally suggest themselves, a broad-paved terrace, a loggia in the second story overlooking the square, and a clock tower, — all convenient and appropriate adjuncts to a building of this character.

The plan solves itself without difficulty from the requirements, and the plan determines the form (though not the style) of the exterior. There remains unfortunately the question of a choice of style. Unfortunately, I say, because in the great periods of art an architect no more thought of choosing the style in which he essayed to work than the bird should choose the air, or the fish the sea : it was already chosen for him, and he did his

thinking in terms of it. It is clear that the architecturally best things of which the little town can boast are its oldest houses and churches, and it is equally clear that they are irreconcilably at variance with those built later, except, perhaps, with a few of the newest houses of all. These, in a manner, keep them in countenance and recall their faded beauty, like fresh young children who more resemble their grandparents than their parents. Here, then, is a hint for the architect to follow. His courthouse must be the fairest grandchild of them all, resembling the oldest and finest of its elders, without mimicking their decrepitude and low estate. In plain words, the building should be in the Colonial style, recalling the period in which our taste was truest and finest, yet it should not be archaic, but palpitating with the spirit of to-day.



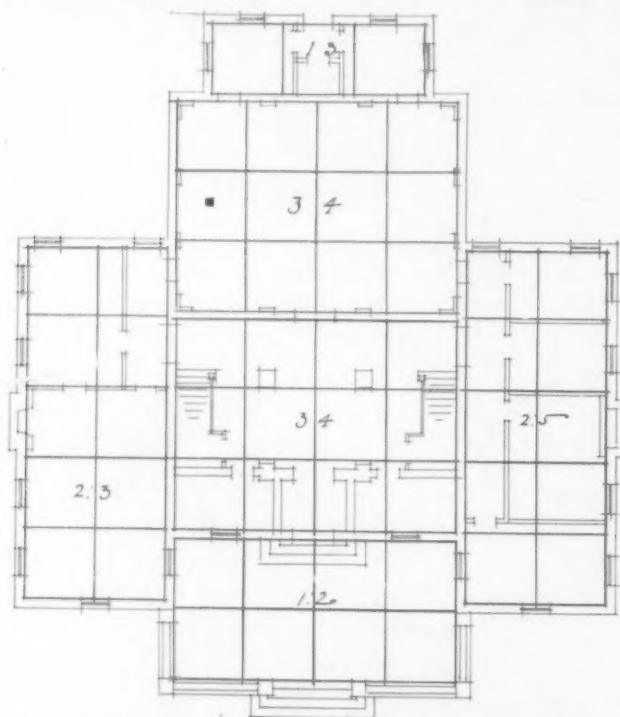
FIRST FLOOR PLAN



SECOND FLOOR PLAN

PLANS, A VILLAGE COURTHOUSE.

The architecture of the Georgian period represents the Renaissance of Jones and Wren in its last gasp, but with all its faults something of the grand manner of an age of taste, of urbanity, of beauty survives in it, and at its best it is characterized by a quiet dignity which we have since failed to achieve, — a dignity arising from a certain justness of proportion of which the builders of that day still possessed the secret, or instinct, and which we appear to have lost. Unlike the secrets of Gothic architecture, cherished by the masonic guilds of the Middle Ages, which were mystical, involved and recondite, the secret of these fine proportions is no very occult matter, since it depends upon the use of simple numerical ratios and of elementary geometrical plane figures. Such aids, intelligently used, particularly in the initial stages of a design, are of great assistance to the architect, however clever he may be; they tend to give his work unity and



coherence, — to make it rhythmical, as it were. And now fairly astride my hobby, let me appear to digress.

We are all of us participators in a world of concrete music, geometry and number, — a world that is of sounds, forms, motions, colors, so mathematically related and co-ordinated that our pygmy bodies equally with the farthest star throb to the music of the spheres. The blood flows rhythmically, the heart its metronome, the moving limbs weave patterns, the voice stirs into radiating sound-waves that pool of silence which we call the air.

"Thou canst not wave thy staff in air,
Or dip thy paddle in the lake,
But it carves the bow of beauty there
And ripples in rhyme the oar forsake."

The whole of animate creation labors under this "beautiful necessity" of being beautiful, and this law of nature is equally a law of art, for art is idealized creation, — nature carried to a higher power by reason of its passage through a human consciousness. Thought and emotion tend to crystallize into forms of beauty as inevitably and according to the same laws as does the frost on

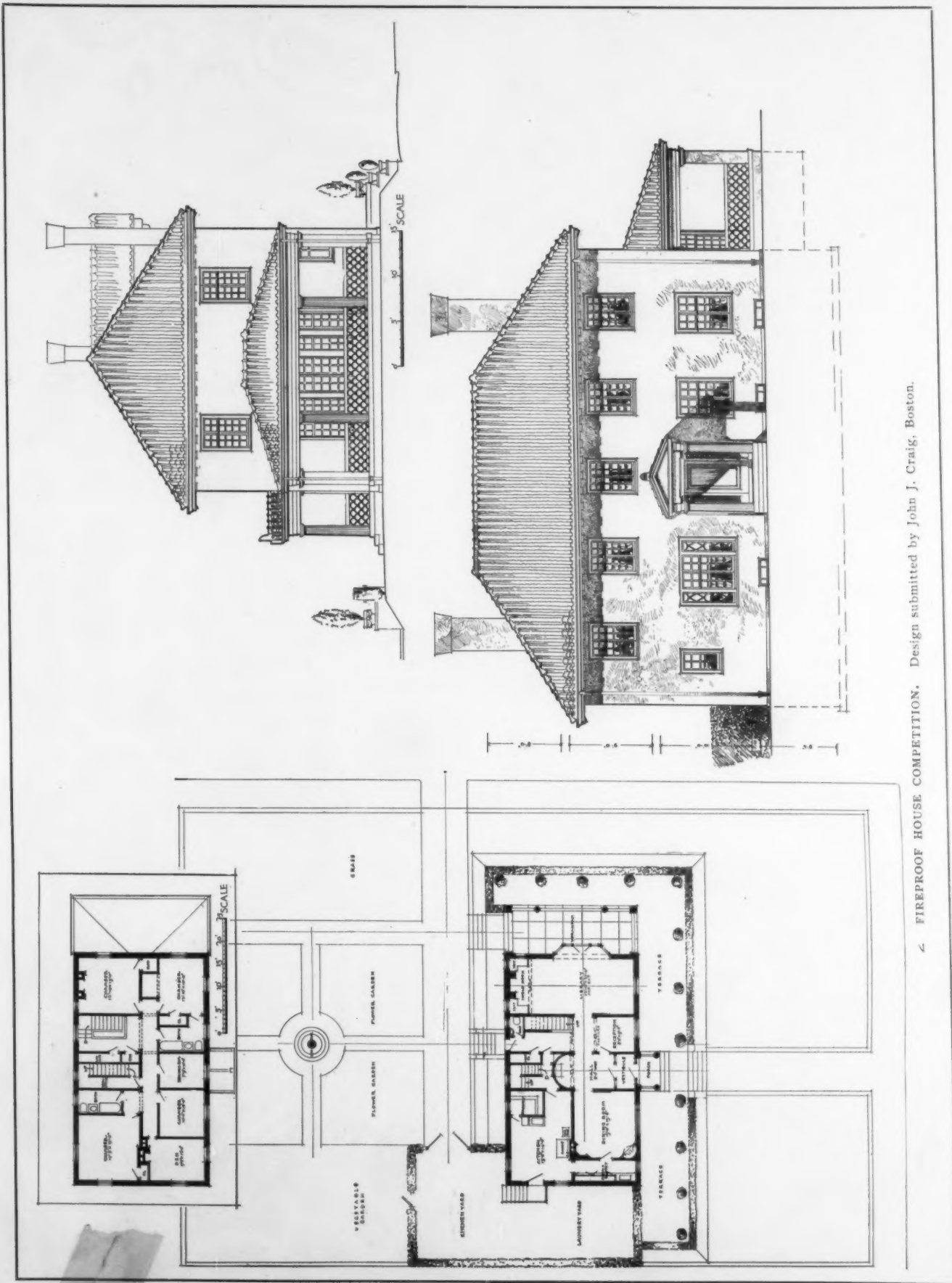
a window pane. Art, therefore, in one of its aspects, is the weaving of a pattern, the communication of an order and method to sounds, syllables, lines, forms, colors, according to certain natural laws; and although it is doubtless true that no masterpiece was ever created solely by the conscious following of set rules, for the artist works unconsciously, instinctively, as the bird sings, or as the bee builds its honey cell, yet an analysis of any masterpiece reveals the fact that its author, like the bird and the bee, followed the rules without knowing them.

Music depends primarily upon the equal and rhythmical division of time, and architecture, no less, upon the equal and rhythmical division of space. Is it not as natural, therefore, — nay, necessary, — to construct one's architectural pattern upon a basis of simple geometrical forms, as that a musical composition be divided into bars and measures?

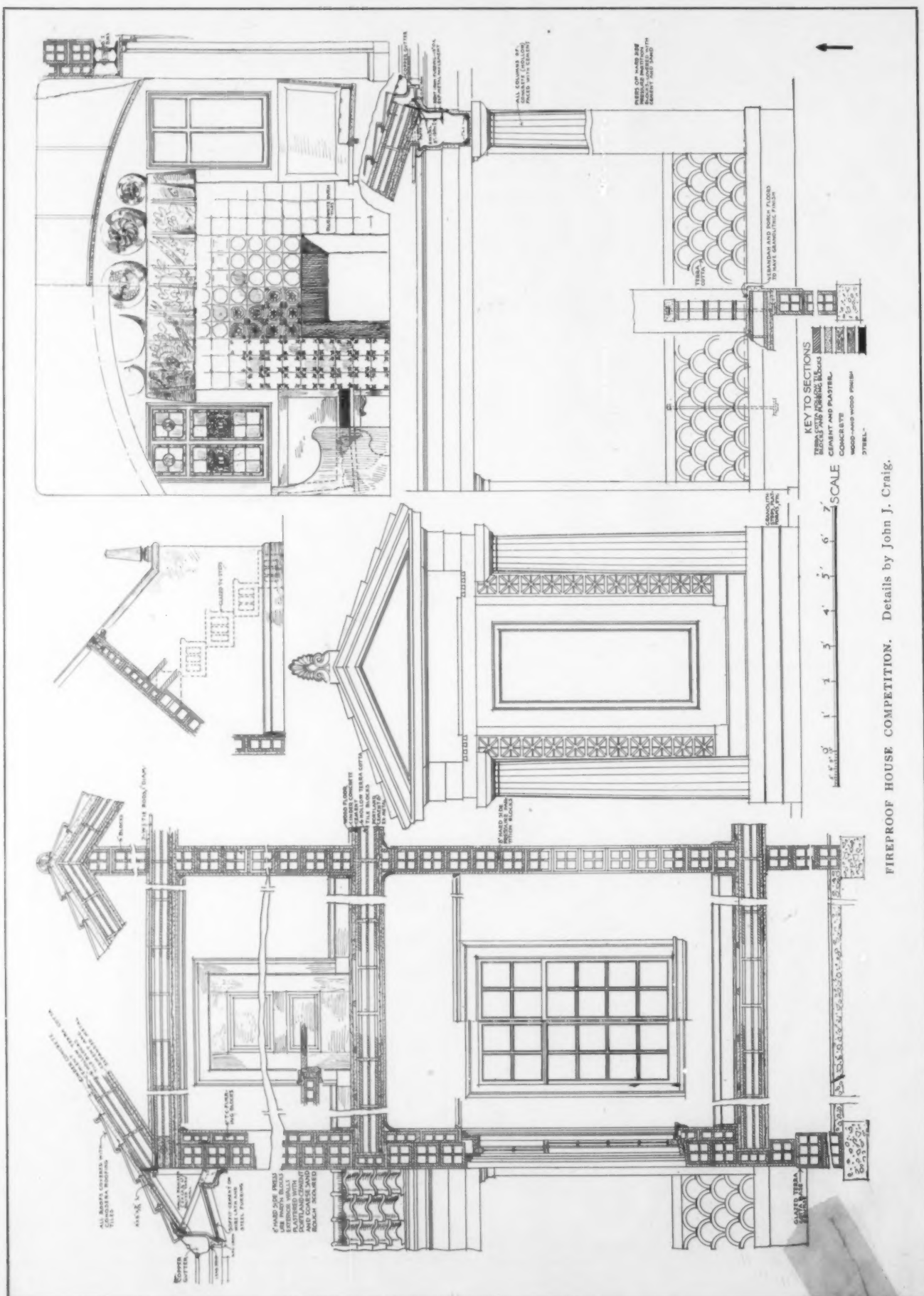


The accompanying diagrams illustrate the application of this principle to the particular case in point. This determination of the plan by squares has the advantage of confining the principle ratios of length and breadth to numbers of relatively small quantity, — ratios, that is, which may not inappropriately be called musical, since all of the principal consonant intervals in music are expressed by ratios of this character: 1:2, the octave, 2:3, the fifth, 3:4, the fourth, and so on. The equilateral triangle, by reason of its peculiar perfection, is useful in determining exterior proportions. It would seem that the eye has an especial fondness for this figure, just as the ear has for certain related sounds. It may be stated as a general rule that whenever three important points in any architectural composition coincide with the three extremities of an equilateral triangle, it makes for beauty of proportion.

It is easy, of course, to exaggerate the importance of these aids to design. The last appeal is necessarily to the eye, and not to a mathematical formula, just as in music the final appeal is to the ear; but some knowledge of this branch of the subject should form part of the equipment of every architectural designer.



2 FIREPROOF HOUSE COMPETITION. Design submitted by John J. Craig, Boston.



Editorial Comment and Selected Miscellany

BOSTON SCHOOLHOUSE COMMISSION.

FOR the past four years the work of building and repairing the schoolhouses of the city of Boston has been in the hands of a special commission appointed by the mayor. Mr. R. Clipston Sturgis, an architect of the highest professional standing, whose work is known all over the country, has been for most of the time the chairman of this commission, and has been the one who has organized its work, carried out its distinct policy and has assumed the main responsibility for the purely architectural work. The commission has been extremely fortunate in its composition, including, as it has, a builder, Mr. Charles Logue, and a lawyer, Mr. J. J. Corbett, both of whom have worked in thorough sympathy and harmony with Mr. Sturgis in endeavoring to secure for the city of Boston the best results from the standpoint of economy and efficiency.

The work of this commission is now being described in these columns, and it has been of a nature which has won praise from other cities throughout the country, and has gone a long way toward restoring to Boston its relative position in school work as compared with St. Louis, New York and Chicago. The buildings erected by it have been intrusted to architects who were selected entirely according to their professional standing and fitness. The department has been absolutely free from any suspicion of improper practice, and the results accomplished have shown that the city was able to build its schoolhouses of first-class fireproof construction at prices averaging about twenty-two cents per cubic foot, a rate far below what usually obtains in private work, and this with no sacrifice of any practical, æsthetic or hygienic requirements.

The act under which the commissioners were appointed gave the mayor the power of removal for cause at pleasure, and this power was most summarily exercised by Acting Mayor Whelton in the early part of this month by the removal of all the commissioners "for gross and unwarrantable extravagance in the expenditure of public moneys." There was absolutely no justification for such course. The only explanation is that a disgruntled party boss, who had failed of carrying his nominees in the primaries, chose this method of making a final spiteful display of his brief authority, using the commissioners' removal as a salve to his wounded political feelings.

It was a disgrace to Boston that such an action should be possible. The Boston Society of Architects, of which Mr. Sturgis is vice-president, took immediate and prompt action in expressing its sentiments, the Master Builders adopted similar action, and from individuals there has come a protest, which of course passes unheeded over the ears of the expiring party boss.

The Schoolhouse Commission has never been a political body. It has had a public function to perform, and has performed it thoroughly, practically, economically and artistically, with but scant reward for the self-sacrifice and hard work which have been required.

INTERNATIONAL CONGRESS OF ARCHITECTS.

THE Seventh International Congress of Architects will be held in London, July 16 to 21, 1906, under the patronage of His Majesty the King. The following is a list of the subjects which will be discussed:

1. The Execution of Important Government and Municipal Architectural Work by Salaried Officials.
2. Architectural Copyright and the Ownership of Drawings.
3. Steel and Reinforced-Concrete Construction:
 - (a) The general aspect of the subject.
 - (b) With special reference to æsthetic and hygienic considerations in the case of very high buildings.
4. The education of the Public in Architecture.
5. A Statutory Qualification for Architects.
6. The Architect-Craftsman: How far should the Architect receive the theoretical and practical training of a Craftsman?
7. The Planning and Laying-out of Streets and Open Spaces in Cities.
8. Should the Architect have supreme control over other Artists or Craftsmen in the completion of a National or Public Building?
9. The Responsibilities of a Government in the Conservation of National Monuments.

The Executive Committee will be glad to receive papers on any of the above subjects for presentation to the Congress. Papers may be written in English, French or German.



FOUNTAIN IN PRINCE GEORGE HOTEL,
NEW YORK CITY.
Howard Greenley, Architect.
Executed in Faience by Rookwood Pottery Co.



HOUSE AT JENKINTOWN, PA.
Hiss & Weekes, Architects. Roofed with Ludowici Shingle Tile.

Each paper must be accompanied by an abstract of not more than 1,000 words.

Papers and abstracts must reach the Executive Committee before the 30th April, 1906.

All communications to be addressed to the Secretary of the Executive Committee, 9 Conduit Street, London, W.



CANTERBURY HOTEL, BOSTON.

C. E. Park, Architect.

Built of light mottled gray brick made by Columbus Brick and Terra Cotta Company. F. G. Evatt, New England Agent.

The American committee of patronage of this Congress consists of the following persons:

The Honorable the Secretary of State.

The Honorable the Secretary of War.

His Excellency the American Ambassador to Great Britain.

Honorable Francis G. Newlands, U. S. Senator.

John M. Carrère,

Hon. Joseph H. Choate,

Frank Miles Day,

Daniel C. French,

Henry C. Frick,

Cass Gilbert,

John La Farge,

Charles F. McKim,

Francis D. Millet,

J. Pierpont Morgan,

Henry Siddons Mowbray,

Robert S. Peabody,

George B. Post,

Augustus Saint-Gaudens,

James Stillman,

J. Knox Taylor,

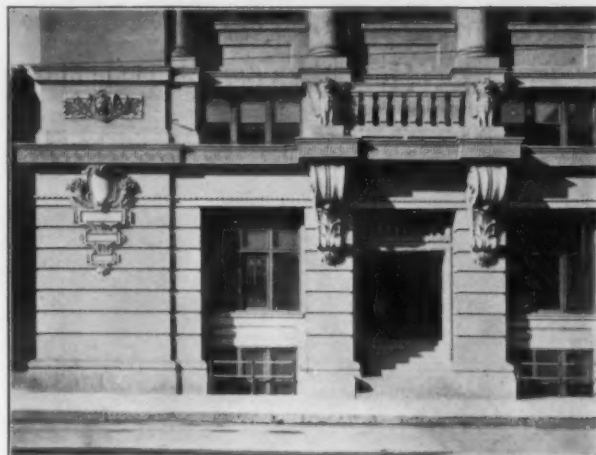
Henry Walters,

Prof. W. R. Ware.



ST. LEDGER FLATS, CINCINNATI, OHIO.

Built of "Shawnee" Brick. Ohio Mining and Man'g Co., Makers.



ENTRANCE TO CREAM OF WHEAT BUILDING, MINNEAPOLIS, MINN.

Harry W. Jones, Architect.

Terra Cotta by American Terra Cotta & Ceramic Co.

The Presidents of the following Societies:

American Institute of Architects.

Architectural League of America.

National Academy of Design.

National Sculpture Society.

Society of American Artists.



HOUSE AT COVINGTON, KY.

Werner, Adkins & Burton, Architects.

Roofed with American "S" Tile, made by Cincinnati Roofing Tile & Terra Cotta Company.

Members *ex-officio*:

Francis R. Allen,

Glenn Brown,

William S. Eames,

William Le Baron Jenney,

George O. Totten, Jr.

The General Permanent Committee of the Congress consists of eighty-six members, eleven from England, fifteen from France, seven from Germany, six from Austria, four from Belgium, two from Canada, three from Denmark, six from Spain, five from the United States, seven from Italy, three from Mexico, three from Netherlands, four from Portugal, four from Russia, three from Sweden, three from Switzerland, and one from Turkey.

ISLE DE LA CITÉ.

A CERTAIN large eastern city, not a thousand miles from where this journal is published, has, facing its



DETAIL BY C. E. CASSELL & SON, ARCHITECTS.
Conkling-Armstrong Terra Cotta Company, Makers.

most choice residential portion and separating it from an academic neighbor, a vast expanse of tidal river, measuring something like a third of a mile across. An architect, whose name has been coupled with some of the most interesting work of recent years, has conceived the most delightful scheme of creating an island in the center of this expanse, and upon one end of the island erecting a large monumental cathedral, upon the other grouping the public buildings having to do with the Metropolitan dis-

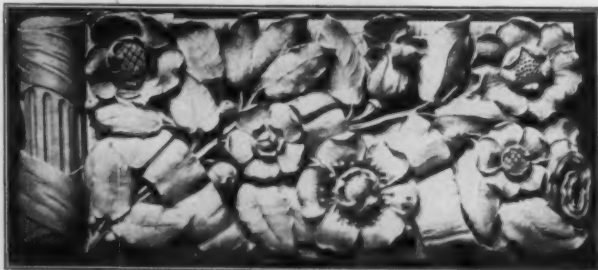


HEIGHTS CASINO, BROOKLYN, N. Y.

William A. Boring, Architect.

Built of a red "stretcher" brick made by Sayre & Fisher Co.

trict, and connecting this island to the main land on each side by a monumental bridge. The spirit of imaginative romance is not gone from our national architecture. Rather it is coming back. And little chance as there is of this delightful scheme being fully realized, its serious consideration is one of the day dreams which can add to the delight of architecture and which, even in its inception, shows how our municipalities may one day be able to utilize the natural advantages of site and surroundings.



DETAIL BY HENRY IVES COBB, ARCHITECT.
Standard Terra Cotta Works, Makers.



METHODIST EPISCOPAL CHURCH, BEAVER, PA.

Hodgens & Burns, Architects.

Terra Cotta made by Excelsior Terra Cotta Company.

BUILDING OPERATIONS FOR NOVEMBER.

OFFICIAL reports of building construction in some fifty leading cities throughout the country, compiled by *The American Contractor*, indicate that the building industry is in a flourishing condition and in somewhat greater volume than in November, 1904. While about a dozen cities of the fifty show a decrease compared with November, 1904, the balance show a decided gain, running as high as 449 per cent in Omaha. A general average through the entire list presents a very favorable aspect. Among the cities most conspicuous for increased building construction are: Baltimore, 24 per cent; Buffalo, 38; Chattanooga, 383; Cincinnati, 66; Davenport, 104; Denver, 223; Detroit, 34; Duluth, 61; Harrisburg, 26; Indianapolis, 78; Jersey City, 110; Louisville, 82; Manchester, 152; Milwaukee, 41; Mobile, 84; Newark, 43; New York, 30; Philadelphia, 71; Pittsburg, 43; St. Louis, 76; St. Paul, 131; San Francisco, 33; Scranton, 105; Seattle, 27; Spokane, 113; South Bend, 142; Topeka, 50; Terre Haute, 56; Washington, 152; Worcester, 174; Wilkesbarre, 281. The figures from Denver, Los Angeles, San Francisco, Pittsburg, Washington, and especially of St. Louis, show an extraordinary building activity, considering the population involved. Denver scored the heaviest building of any month in many



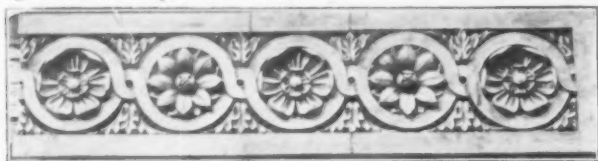
DETAIL BY NEW JERSEY
TERRA COTTA CO.



DETAIL BY GEORGE KRAMER THOMPSON,
ARCHITECT.
New York Terra Cotta Company, Makers.

manufacturers' Association and the Eighth Yearly Meeting of the American Ceramic Society are to be held at Philadelphia, Pa., February 5 to 17, 1906.

Samuel A. Brouse, architect, First National Bank Building, Trenton, N. J., desires manufacturers' catalogues and samples.



DETAIL BY WILLIAM T. FANNING, ARCHITECT.
Brick, Terra Cotta and Tile Company, Makers.

The American Society for Testing Materials will devote its energies for the present to a series of tests of



DETAIL BY RICHARD E. SCHMIDT, ARCHITECT.
Northwestern Terra Cotta Company, Makers.

years. Thus far building and construction have been satisfactory, and there is no sign of a let-up in the near future.

IN GENERAL.

Prof. W. H. Goodyear has been elected an honorary member of the Edinburgh Architectural Society.

The Twentieth Annual Convention of the National Brick Manufac-

same, with the hope of drawing forth suggestions and criticism from all who may be interested.

It is the desire of the committee to make the record of past tests as complete as possible, and it will greatly appreciate the kindness of those who may possess such information if they will forward the same to Prof. Ira H. Woolson, Columbia College, New York City.

The Standard system of hollow tile fireproofing, manufactured by the National Fireproofing Company, will be used in the following new buildings in New York City: Chemical National Bank, Trowbridge & Livingston, architects; Laflin Store, Hale & Rogers, architects; U. S. Express Company's Building, Clinton & Russell, architects; Loft Building for Hoffman Estate, J. B. Snook & Sons, architects.



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PURDON & LITTLE, ARCHITECTS.

THE BRICKBUILDER,
DECEMBER,
1905.



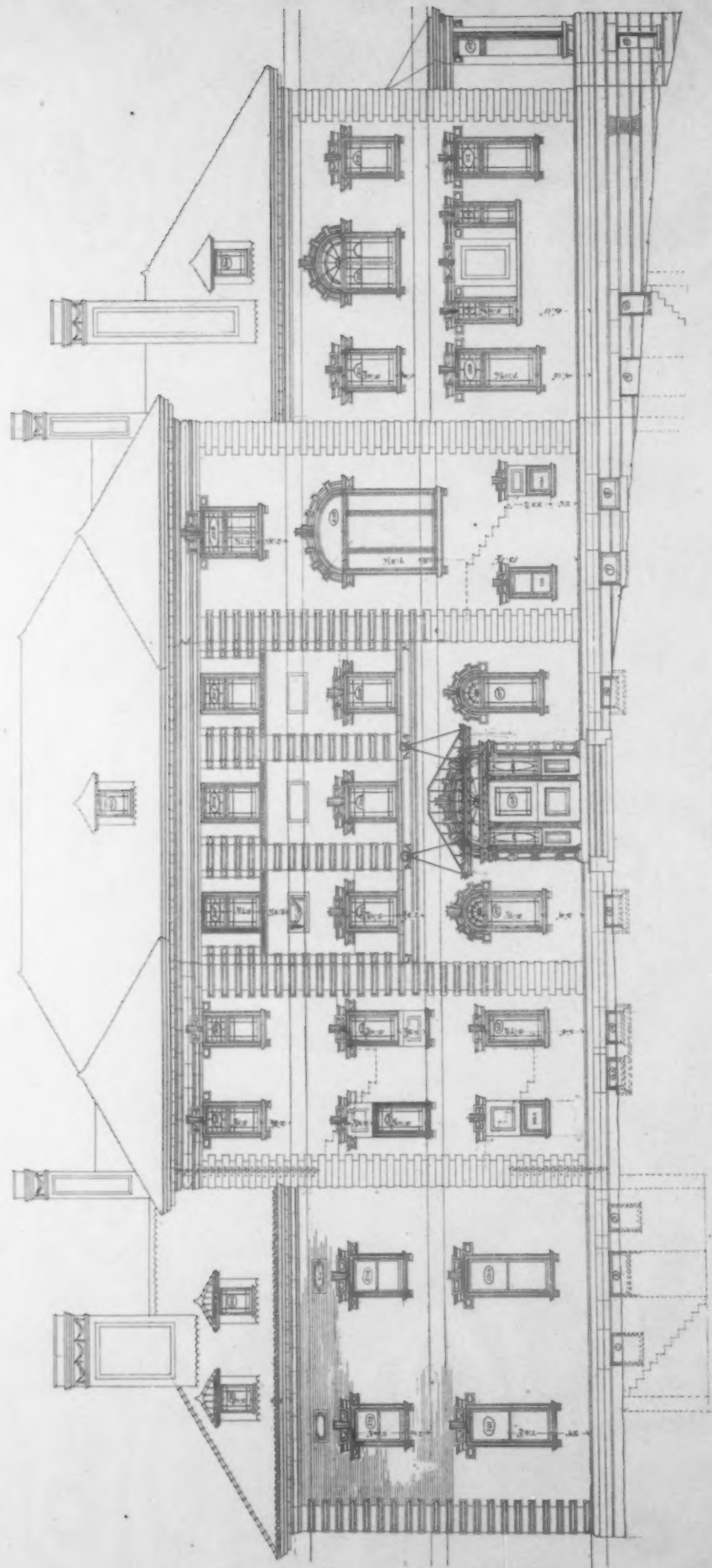


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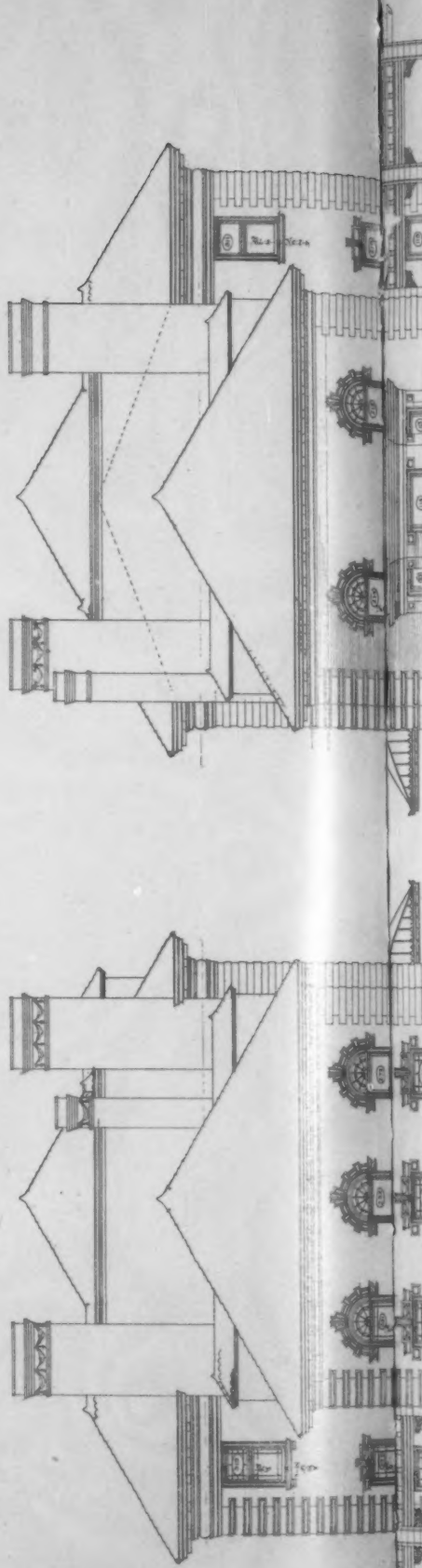


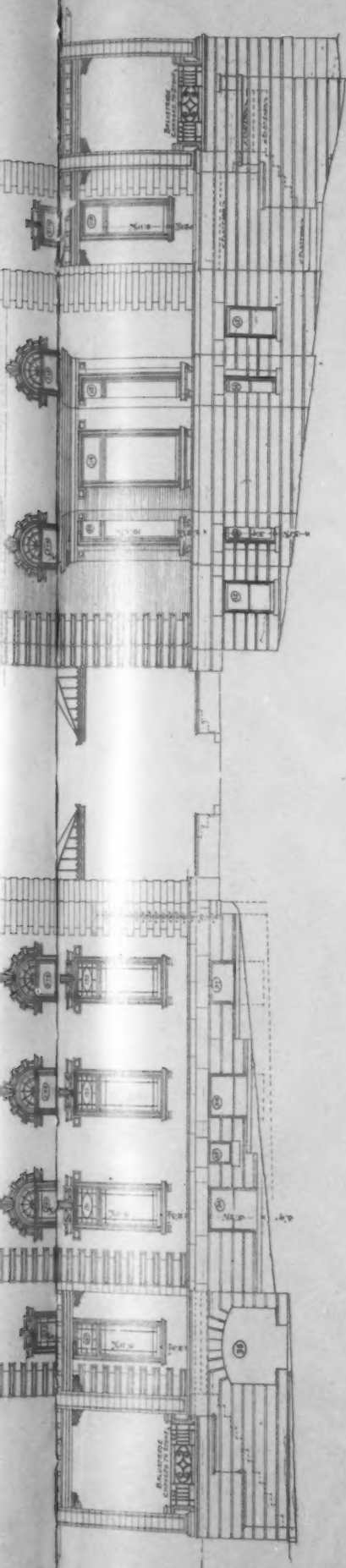


VIEWS OF THE REAR AND TERRACE, COTTAGE CLUB, PRINCETON, N. J.
MCKIM, MEAD & WHITE, ARCHITECTS.



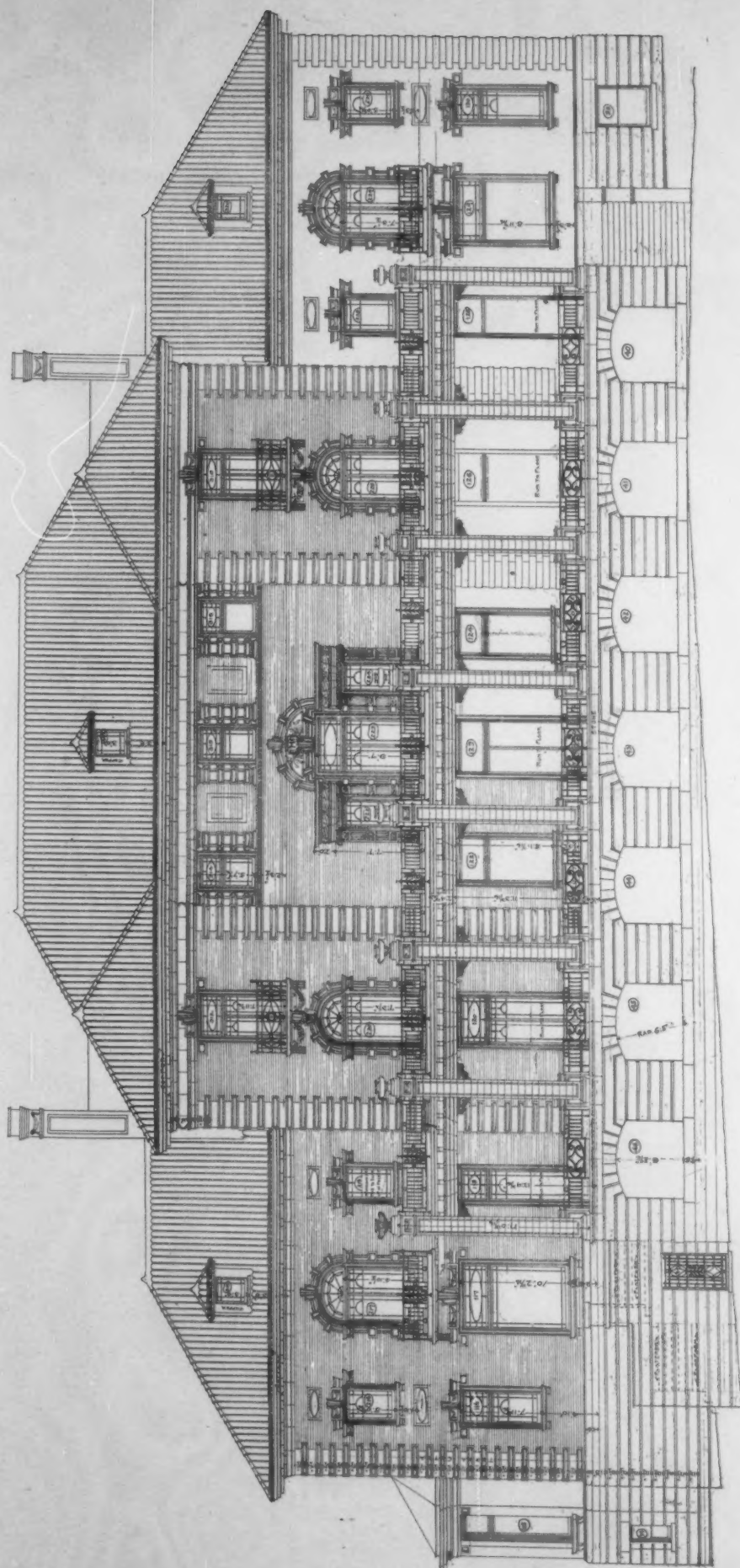
EAST ELEVATION.



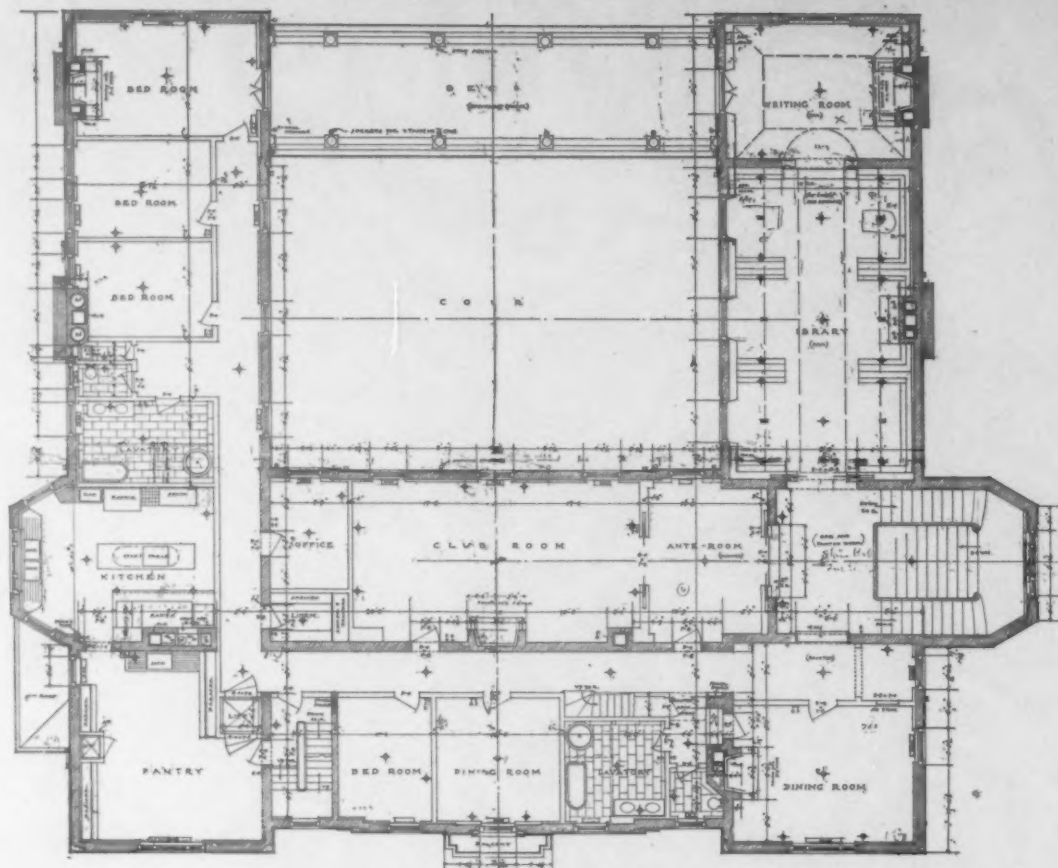


SOUTH ELEVATION.

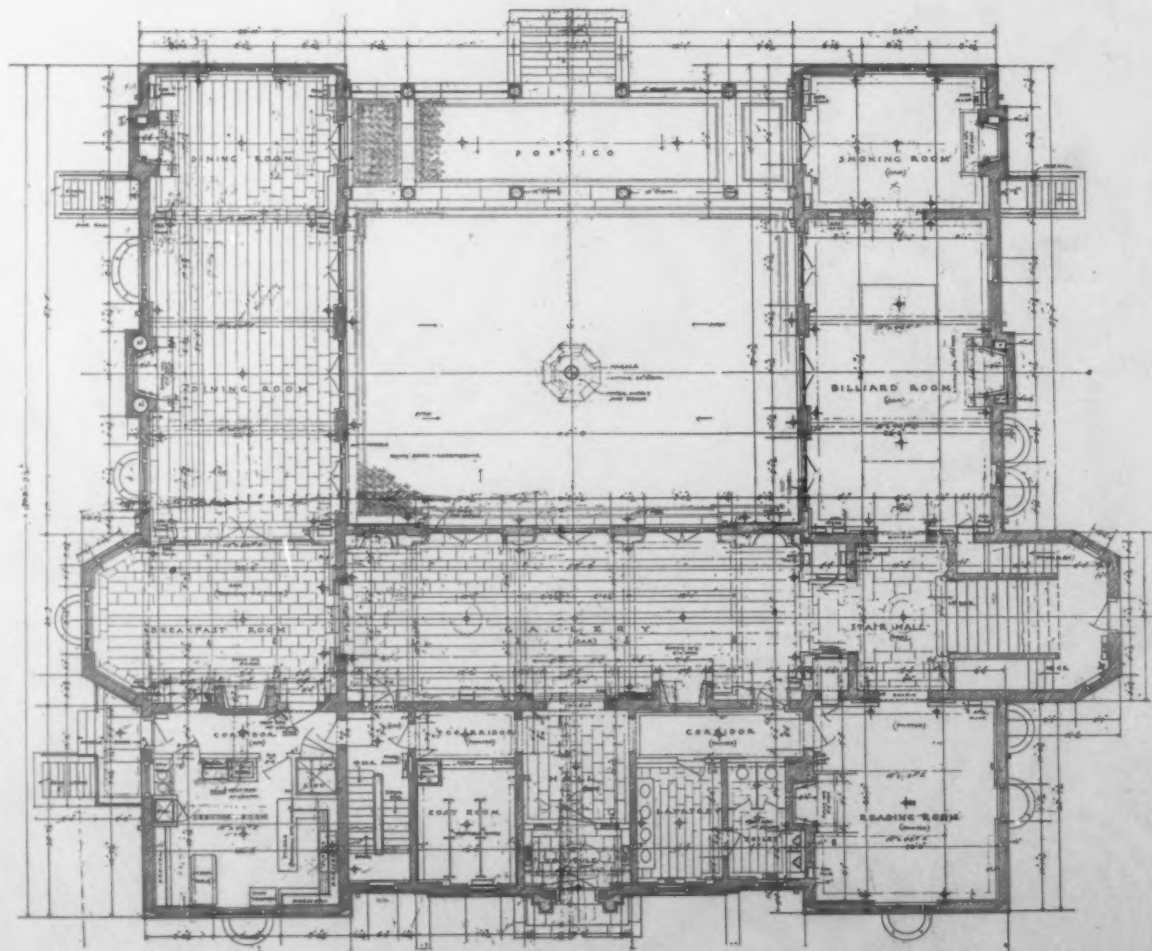
NORTH ELEVATION.



WEST ELEVATION.
ELEVATIONS, HOUSE FOR F. R. HALSEY, ESQ., TUXEDO PARK, N. Y.
BRUCE PRICE, ARCHITECT.

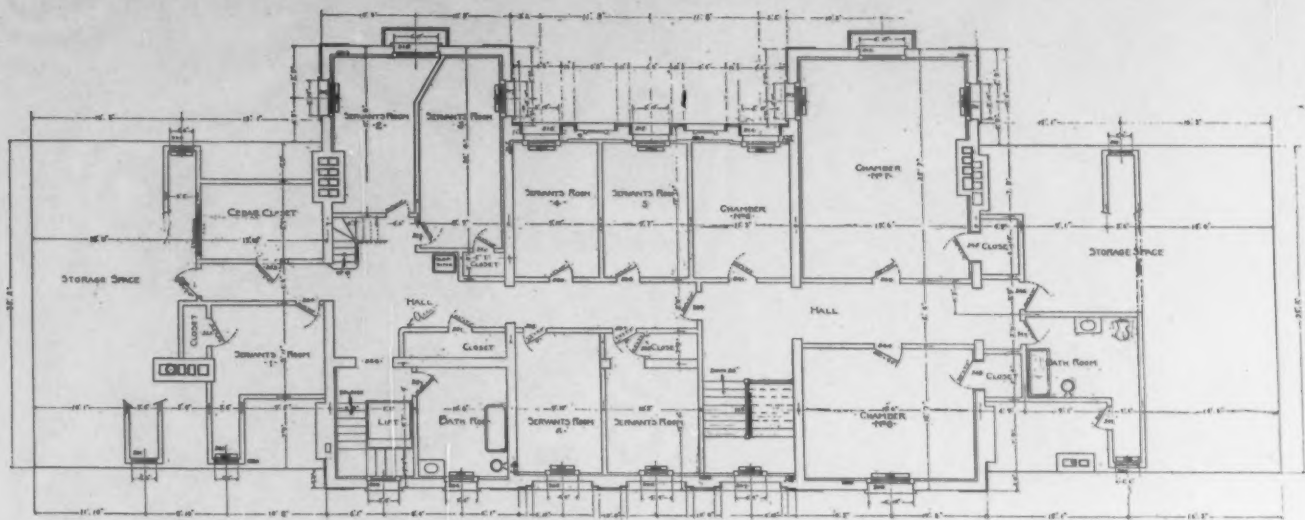


SECOND FLOOR PLAN.

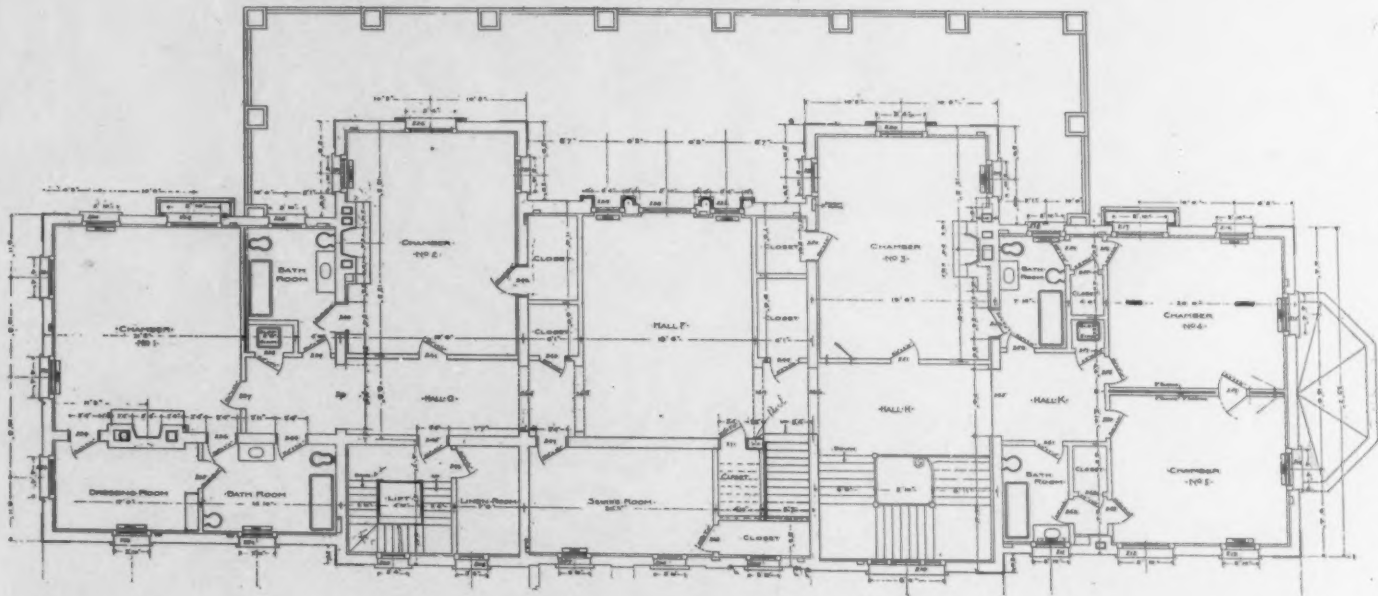


FIRST FLOOR PLAN.

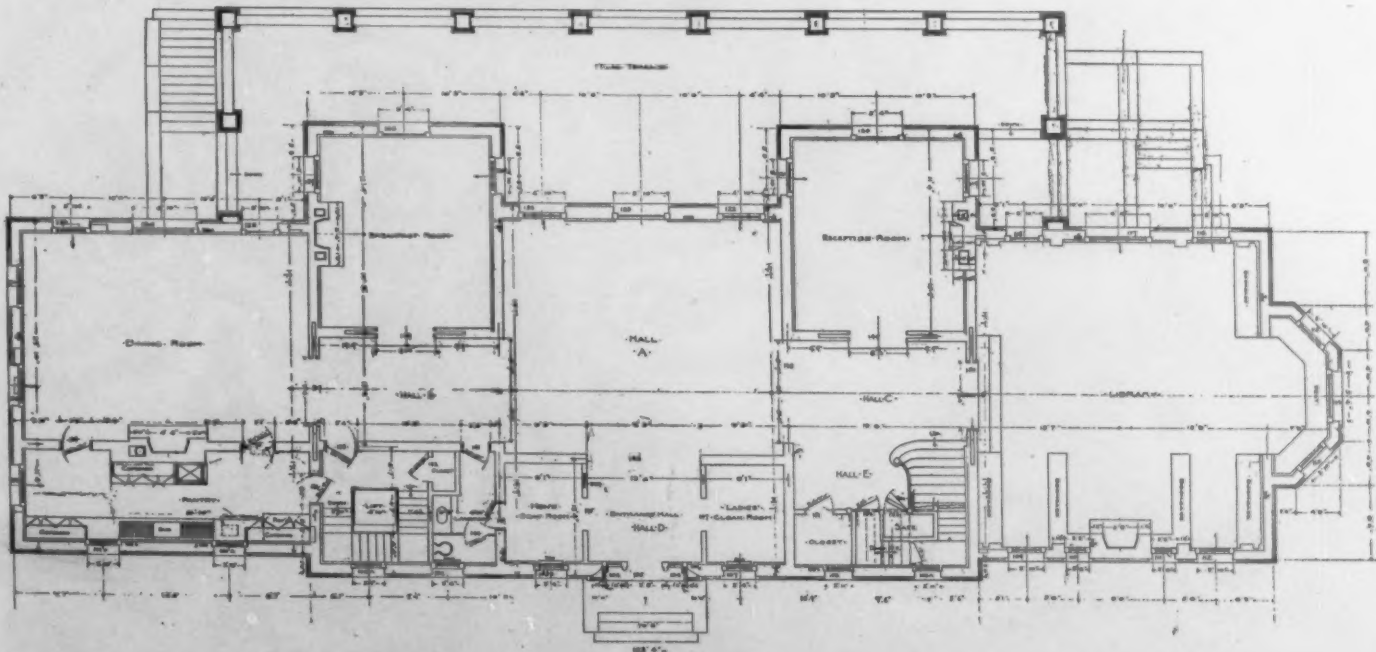
FLOOR PLANS, THE COTTAGE CLUB, PRINCETON, N. J.
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THIRD FLOOR PLAN.

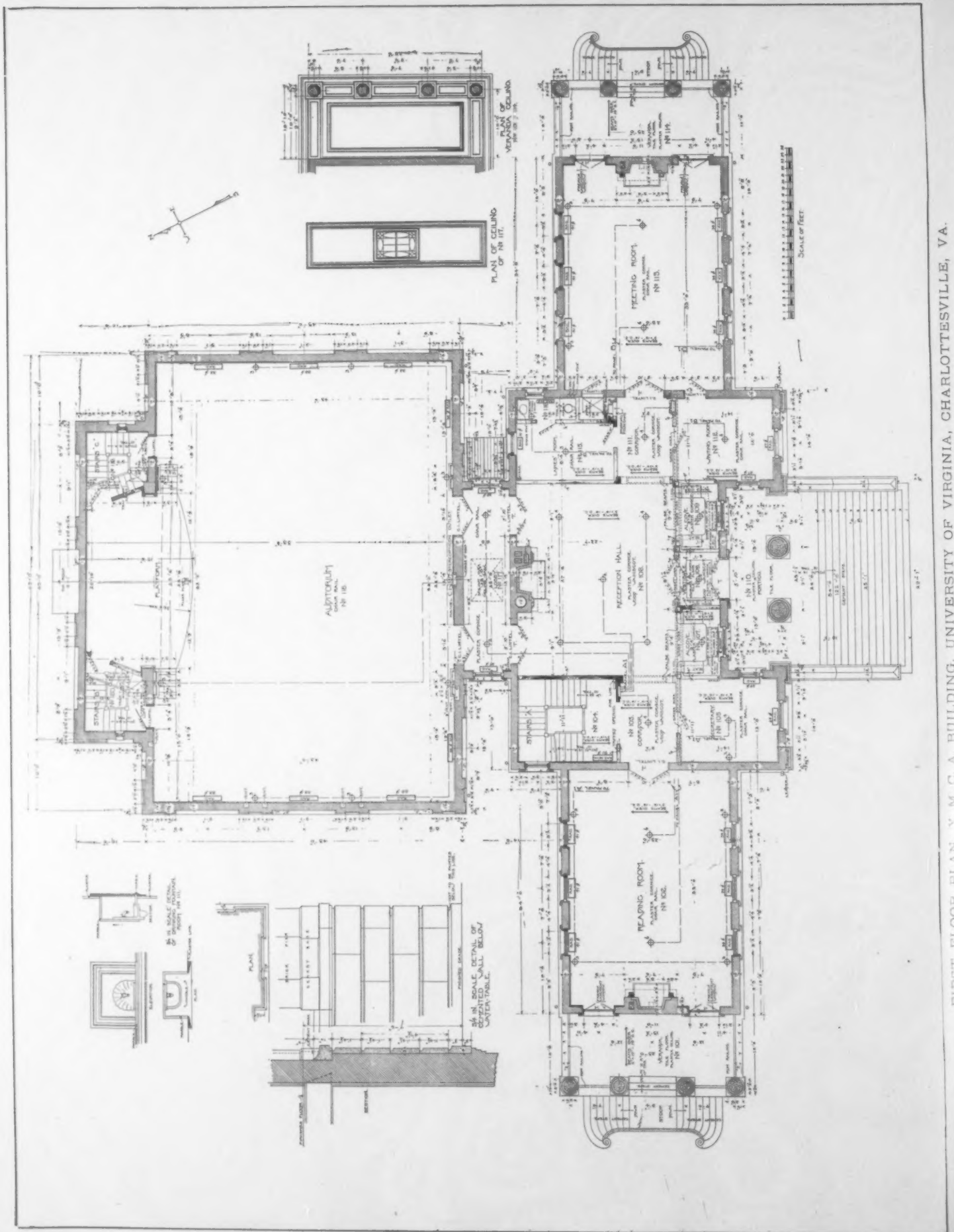


SECOND FLOOR PLAN.



FIRST FLOOR PLAN.

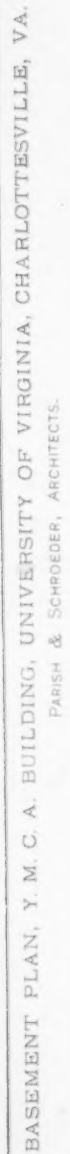
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BRUCE PRICE, ARCHT.

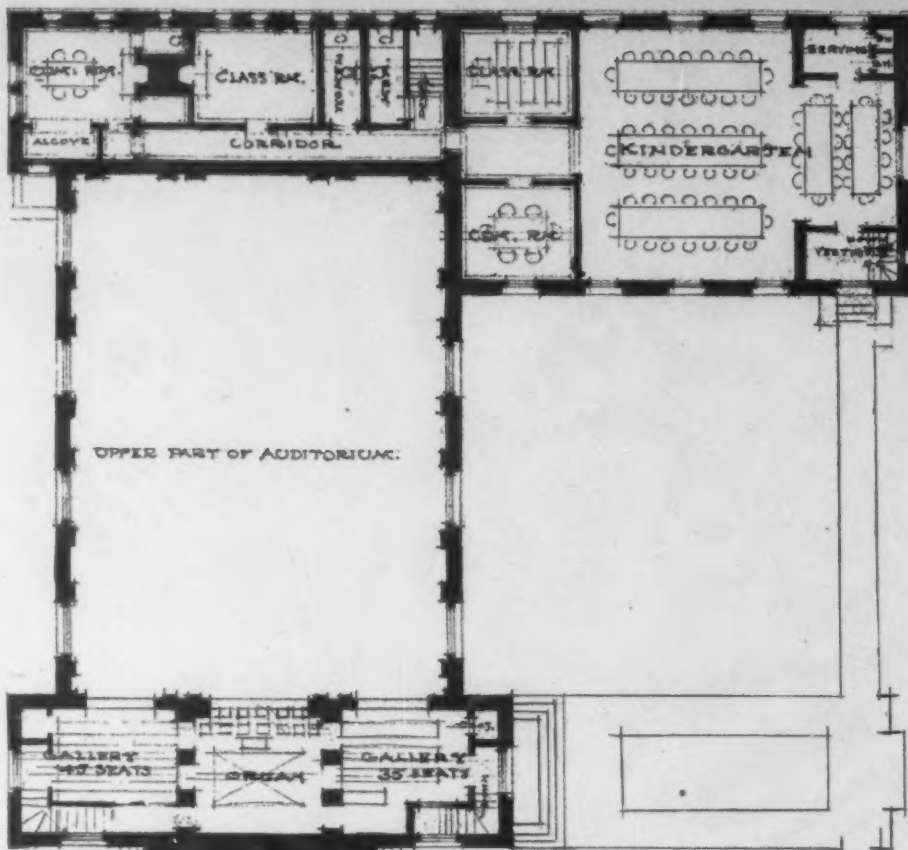


FIRST FLOOR PLAN, Y. M. C. A. BUILDING, UNIVERSITY OF VIRGINIA, CHARLOTTESVILLE, VA.
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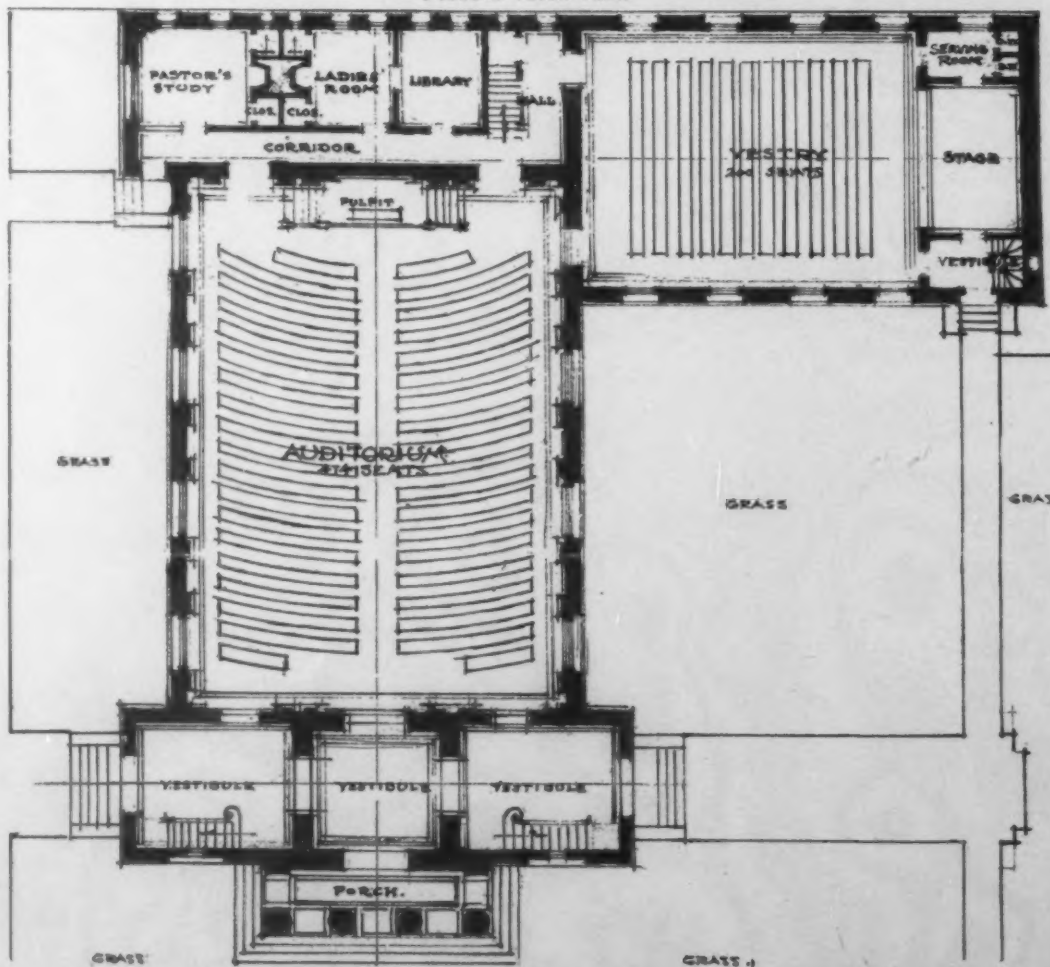
FIRST FLOOR PLAN
PARISH & SCHROEDER, ARCHITECTS.

PLATE 94.



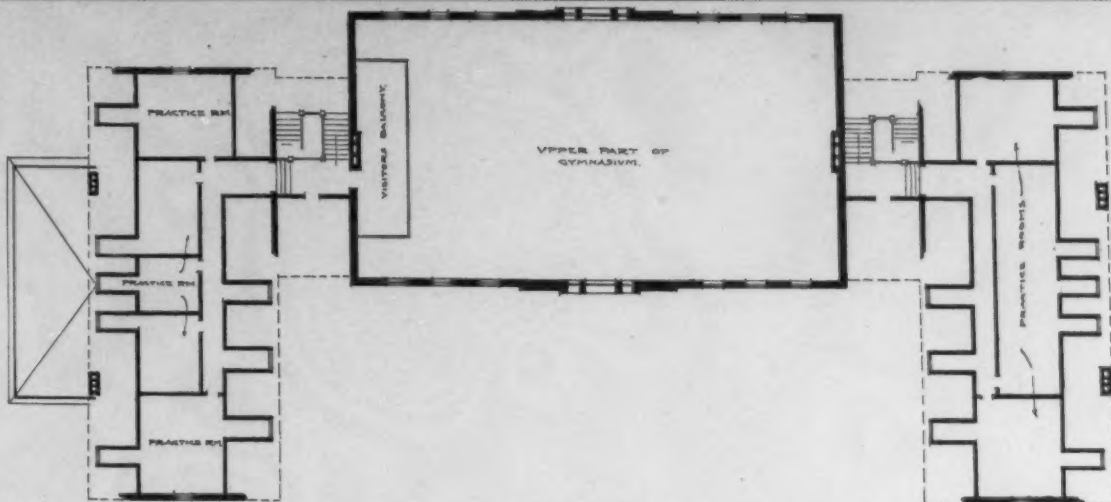


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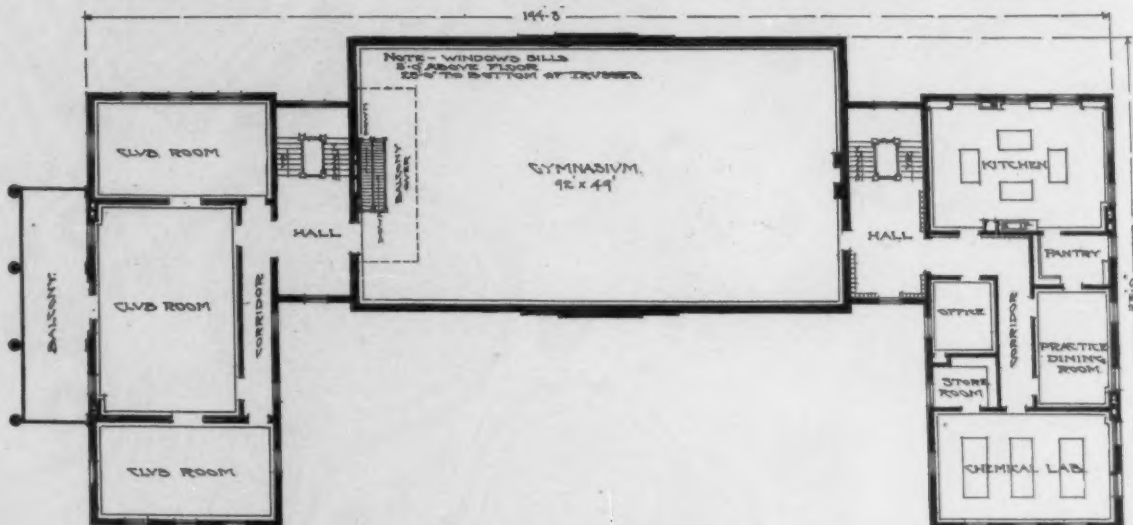


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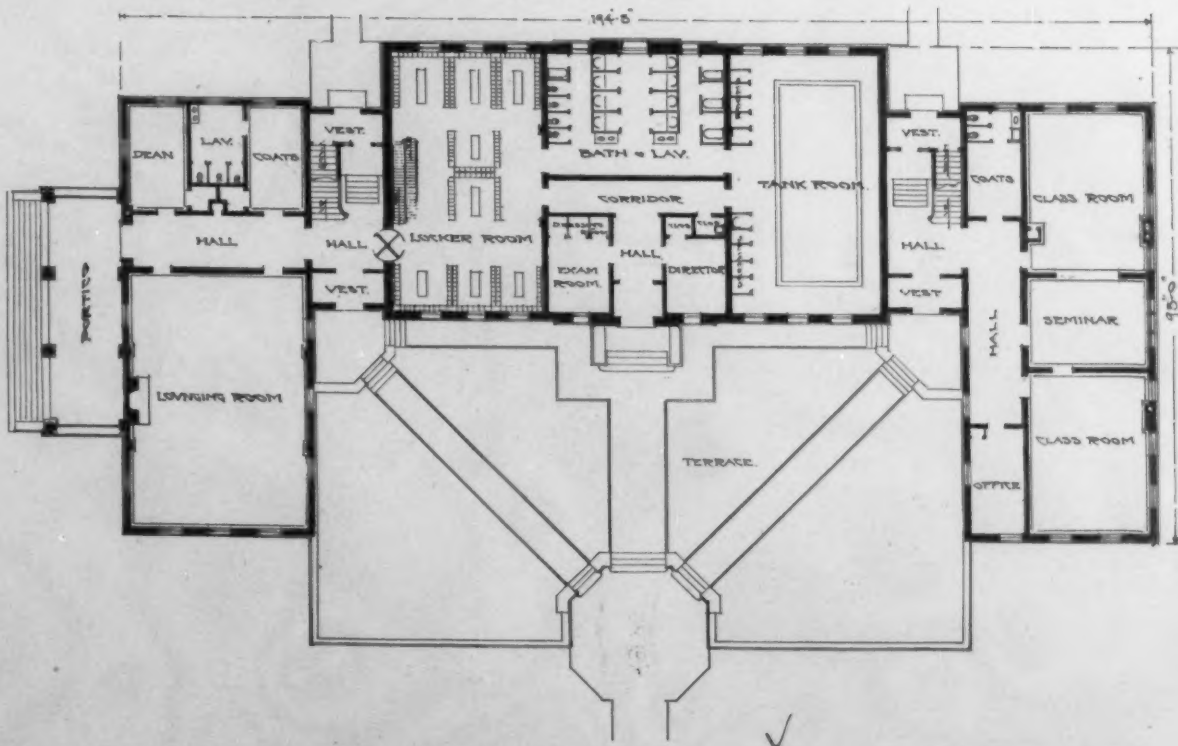
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THIRD FLOOR PLAN.



SECOND FLOOR PLAN.



FIRST FLOOR PLAN.

PLANS, WOMEN'S BUILDING, UNIVERSITY OF ILLINOIS, URBANA, ILL.
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